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THE

RISE, PROGRESS AND PRESENT STATE

OF

COLONIAL SHEEP & WOOLS,

CONTINUED FROM 1846, AND COMPRISING THOSE OF

AUSTRALIA, VAN DIEMEN'S LAND, NEW ZEALAND,
SOUTH AFRICA, CHINA, &c.;

WITH AN ACCOUNT OF OUR

HOME PRODUCTION OF WOOL AND WOOLLEN MANUFACTURES,

AND EMBRACING REMARKS ON THE USE OF

ALPACA, ANGORA & CASHMERE GOATS' WOOL;

TOGETHER WITH

STATISTICAL SKETCHES

OF THE

WOOL-PRODUCING COLONIES,

ENUMERATED, UP TO THE LATEST DATES RECEIVED FROM EACH.

BODL. BIBLIOTHECA

By THOMAS SOUTHEY.

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London, September 1, 1851.

PRELIMINARY REMARKS.

The new and interesting features, which our wool-growing Colonies have assumed since the date of my last publication, that is, subsequent to the close of 1846, added to the mass of valuable information thence more recently received, would naturally call for a revised edition of the "Rise, Progress and Present State of Colonial Wools;" but the task would be too laborious for me to undertake. Besides, there were some copies preserved from a fire, which took place at the printers', and these I have thought it preferable to issue in the form of a second edition, accompanied by illustrative Maps and a Continuation, embracing an Account of the Colonial Wool Trade up to the latest dates, together with Statistical Sketches of our wool-producing Dependencies, founded upon the newest and most authentic reports received from each. By these means my last work will be brought up to the standard of the day, and for the accommodation of the earlier purchasers, as well as for distribution among my friends, I propose to publish the Continuation separately, and with the same accompaniments. The copies, already disposed of, may be thus easily made complete.

In treating so comprehensive a subject, it should never be forgotten that Sheep's Wool is the second staple article of British Manufactures, and that with the expansive industry and increased consumption at home, coupled with the progressive demand abroad for textures made with it, and even for the raw material itself upon the Continent, of which our ports have now become a kind of entrepôt, adequate supplies have become absolutely necessary. Upon these the bread of many thousand families depends, besides a commensurate remuneration to the capitalists and manufacturers who employ them.

Whence we are provided with the requisite raw material is a point to which my attention has for many years been directed, and I now renew my efforts to keep this subject steadfastly before the public eye, by commencing with our most bountiful external suppliers. Every year's experience has convinced us that our Australian Colonies combine, within themselves, all the elements calculated to attract population, capital and enterprise, by means of which several of their local resources, and among them wool, have already been developed to an extent which, thirty years ago, it would almost have been hardihood to predict. The progress in fact made in all kinds of industrial pursuits, even within the last three years, among the several sections composing the Australian Community, attended, as they have been, by administrative changes at home of the most striking character, is really astonishing—a progress which cannot fail to be a topic of cordial congratulation to the public at large, at the same time that it may be received as sufficient apology for my resuming a favourite theme.

In speaking of Australia, it should be constantly borne in mind that it was not till the year 1787 that a British Settlement was planted in so remote and unexplored a region, not for the purpose of growing tobacco, wool, or cotton, but as a receptacle and school of reform for criminals, expatriated and removed from our shores. The feeble origin of this Colony, and the manner in which its resources were gradually developed, have been abundantly traced, but the destinies to which, with its offshoots, it may hereafter rise, no tongue can tell.

In the onward movement of a new settlement, nothing denotes success so much as an increase in the inhabitants, their agriculture and their commerce. According to "Returns of the Population, Trade, Immigration, Revenue and Expenditure of each of the Australian Colonies for the last ten years," ordered July 5th, 1850, it appears that the population of New South Wales had advanced from 114,386, in 1839, to 220,474 souls, in 1848, being an increase equal to 93 per cent. For Van Diemen's Land the returns reach only to 1847, exhibiting an increase of from 44,121 to 70,164, or 59 per cent. South Australia, however, owing to its progress in mining, shows the most remarkable result, the numbers in 1839 having been entered at 10,015, while in 1848 they had reached 38,666, the increase thus amounting to 286 per cent. Western Australia also, although long almost stationary, through the effects of her improved trade with the Indian Seas, has lately made an unexpected progress, the corresponding advance having been, within the same period, from 2,154 to 4,460, or 107 per cent.

As regards the whole Australian group, the increase has been from 170,690 souls, in 1839, to 333,764, in 1848, showing an advance of

163,088, or at the rate of 95½ per cent. Taking into account the many favourable circumstances which have attended these Colonies within the last two years, the present population cannot be estimated at less than 400,000. With respect to them the balance of trade is also in their favour, the imports in 1848 being 2,578,442*l.*, and exports 2,854,315*l.*

In the mean while, it may not be amiss to remark that persons, not accustomed to watch the intellectual and social progress of our Australian Colonies, will be astonished to hear that among them, besides almanacks and magazines, no less than 51 newspapers are printed—viz., New South Wales, 12; Australia Felix, or Port Phillip, 11; South Australia, 11; Van Diemen's Land, 9; New Zealand, 6, and Western Australia, 2. In the same group there are 6 bishops, viz.—at Sydney, Newcastle, Tasmania, Melbourne, Adelaide and New Zealand.

The new law for the better government and administration of these distant settlements has now taken effect, and its provisions confer the elective franchise on a number of inhabitants who previously had not enjoyed this privilege. Port Phillip is to form a separate Colony, and to be called, in honour of Her Majesty, "Victoria," and for its government a Legislative Council will be elected. Electoral districts are to be established in New South Wales, where freeholders, householders to 10*l.* a-year, and landowners can vote in the election of members to the Legislative Council, and a registration of voters is to be opened. Legislative Councils are also to be established in Van Diemen's Land, South and Western Australia. New enactments and regulations will thus be made for the several sections, and through their own intervention taxes levied for civil, judicial and religious purposes.

Under the combined influence of agriculture, commerce and mining, with one exception only, our Colonies in Australia have risen to an astonishing state of prosperity, and there is every reason to expect that we shall continue to receive from them encouraging accounts in reference to the increase in production, which there appears to proceed at a more rapid rate than at any former period; indeed had it not been for the timely aid, which we have thence received, the Woollen Trade at home could never have risen to the pitch at which it now stands. Their position and circumstances are favourable to the expansion of commerce, and some idea may be formed of the activity of the new trade, opened from these Colonies to California, when it is stated that the number of foreign vessels, which entered the port of San Francisco during the quarter ending September 30th, 1850, was 152, of which 89 were British, chiefly from New South Wales and the other sections of Australia, including New Zealand.

The manufacture of wool, besides being our oldest branch of in-door industry, may justly be considered as characteristic of the British Isles, and it has now reached an amount, as well as acquired a degree of importance, by no means duly appreciated. It is also more generally diffused throughout the country, although it flourishes most in the West Riding of Yorkshire, but at the same time other English counties have a proportionate share, and in Scotland it equally forms a prominent feature in the industrial enterprise of the inhabitants. To meet the growing demands for a continuous supply, consequently, requires a large, and indeed, as fashions go, a varied producing power, and this fortunately we possess within ourselves, without being dependant, as in reality we are for cotton, upon foreign sources.

When the manufacture of woollens commenced among us, the chief reliance of the undertakers was upon home production; but, being once fairly started, this supply was found to be beneath the actual requirements. Parties concerned were thus compelled to call in foreign aid, and among other expedients resorted to we became a kind of tributary to Spain, whence in 1815, we imported 6,927,934 lbs. of wool, besides 3,137,438 from Germany; but, in 1849, our importations of the same article from Spain dwindled down to 127,559 lbs., and in the interval we ourselves became extensive exporters of certain qualities to Germany, notwithstanding we thence still continue to receive some supplies of the most marketable kind. To illustrate this striking change in the sources of our external supply, I beg to subjoin the following comparative statement of wools, imported at a remote and recent period.

	1815.	1849.
Spain	lbs. 6,927,934	127,559
Germany	3,137,438	12,750,011
Other parts of Europe	3,416,132	11,432,354
South America	45,838	6,014,525
Cape of Good Hope	23,363	5,377,495
British India	„	4,182,853
Australian Colonies	73,171	35,879,171
Other parts	10,291	1,004,679
	13,634,167	76,768,647

Our importations from Sydney, in 1850, were 51,288 bales, and in 1849, 50,584; from Port Phillip, in 1850, 49,372 bales, and in 1849, 41,714; from Portland Bay, in 1850, 6,006 bales, and in 1849, 3,634;

from Hobart Town in 1850, 9,179 bales, and in 1849, 9,672; from Launceston, in 1850, 8,289 bales, and in 1849, 8,254; from Port Adelaide, in 1850, 10,927 bales, and in 1849, 10,057; from Swan River, or Western Australia, in 1850, 1,046 bales, and in 1849, 815, and from New Zealand, in 1850, 1,502 bales, and in 1849, 661. As suppliers of one essential article, such are the proportions in which we stand indebted to the Colonies above named.

As consumers, besides adding a large share to the activity prevailing in the general trade of the mother-country, it may not be amiss to mention that, in 1829, our total exports to New South Wales, Van Diemen's Land, and Western Australia, amounted to 310,681*l.* and to New Zealand and the South Sea Islands to 845*l.*, but, in 1849, the first had risen to 2,080,364*l.* and the second to 29,314*l.* In the way of contrast I may be allowed to add that, in 1849, our exports to the British West Indies and Guiana were 1,821,146*l.*; to British North America 2,280,386*l.* and Western Coast of Africa 620,371*l.* In the same year the number of vessels entered inwards from New South Wales, including Port Phillip, was 76 and outwards 139; South Australia inwards 41 and outwards 36; Van Diemen's Land inwards 18 and outwards 35; Western Australia 1 and outwards 3, and New Zealand inwards 4 and outwards 22.

This outline may suffice to point out the present sources of our external supply; but with all our earnestness—all our researches, to obtain correct information on the ratio of production at home, strange, as it may appear, there is nothing so difficult to establish as the present number of sheep within the United Kingdom on anything like respectable authority, and without which our total home-production of wool cannot be fairly estimated. This defect, it is to be hoped, will be remedied in the ensuing Census; but, in the mean while, it may be stated that, in 1699, it was computed that there were 12 millions of sheep in England and Wales, valued, besides the skin at 7*s.* 4*d.* each, and the wool yearly shown, worth 3*s.* 4*d.* per fleece, at 2,000,000*l.*, at which amount our exportation of woollens was then rated.

This subject was afterwards much neglected, nor had we any satisfactory elucidations upon it till Mr Luccock published his Treatise on English Wools, drawn up with great diligence and research, and at the time entitled to much respect, but owing to the want of materials evidently defective in many of its parts. Subjoined is his estimate for 1800.

Number of long-woolled sheep in England and Wales	4,153,308	
„ of short-woolled ditto	14,854,299	
Total number shorn		19,007,607
Slaughter of short-woolled, per annum	4,221,748	
Carrion of ditto	211,087	
Slaughter of long-woolled ditto	1,180,413	
Carrion of ditto	59,020	
Slaughter of lambs	1,400,560	
Carrion of ditto	70,028	
		7,140,856
Total number of sheep and lambs		26,148,463

In the General Report of Scotland (Vol. iii. Appendix p. 6) the number of sheep in 1814 was estimated at 2,850,000, which in 1846 were supposed to have increased to 3,500,000, and on the above premises it was calculated that at the latter period, the total number of sheep in Great Britain was something above 30 millions. The number, returned for Ireland, in the Census of 1841, was 2,106,189. Of these about 1,500,000 were believed to be long-woolled, mostly of the improved breed, and producing fleeces weighing from 6 to 7 lbs.; but, according to the Returns of Irish Agricultural Produce for 1849, recently submitted to Parliament, the sheep were returned at, 1 year old and upwards, 1,402,624, and under 1 year old, 374,487—total 1,777,111.

Mr Luccock estimated that the total produce of our flocks, in 1800, was 384,000 packs of 240 lbs. each, or 92,544,000 lbs.; and Mr James Hubbard, an experienced and extensive wool-stapler of Leeds, when the subject was before the memorable Committee of the House of Lords, and a searching inquiry going on, satisfactorily demonstrated that, supposing Mr Luccock's estimate to have been tolerably correct at the time it was made, in 1828, the period to which his own researches were immediately directed, our total production of wool could not be less than 463,169 packs, being only an increase of 20 per cent., and corresponding in the aggregate to 111,623,729 lbs. Relying upon these data, and taking into account the high price which this commodity subsequently attained, as well as the greater weight of both fleece and carcase, thus yielding to the farmer more profit than at any former period, Mr M'Culloch, writing in 1846, came to the conclusion that the total production of wool, in the British Isles, was then not less than 540,000 packs, or 130,140,000 lbs.

Considering that these data, however respectable, did not afford any just conception, under our altered circumstances, either of the increased number of sheep among us, or the advantage gained through the additional weight of fleece, I addressed letters of inquiry upon these two points to some of our most eminent breeders in the kingdom, and at the same time caused others to be forwarded, and to the same effect, to every part of the country, by long-established staplers and practical men, who readily volunteered to join me in so useful and seasonable a research.

Our joint inquiries were directed to the best sources of information in our several wool-producing counties, specially with the view of ascertaining, in each, 1st, the probable increase, or decrease, in the number of sheep since 1828, and 2ndly, the gain in and present average weight per fleece. To our earnest applications we received upwards of 50 replies, abounding in local information and some of them containing details, as well as comparative views of past and present times, in reference to the subject under consideration, of the most interesting character. In justice to the writers several I should have been glad to insert entire, if I had received permission so to do, and their reports had not been too long; but, after expressing my grateful obligations for assistance, in procuring information from the various counties, to Messrs John R. Hubbard, of Leeds; Alexander Hadden and Sons, of Aberdeen; John Barff, of Wakefield and William Cheeseborough, of Bradford, I will endeavour to form a synopsis of the general results obtained, taking the reports more in the order in which they were received, than according to their relative importance.

Lincoln was always held to be one of our largest wool-producing counties, and there, in 1800, Mr Luccock estimated the fleece on ordinary lands at 5½ lbs, on rich 9 and marshes 8; while Mr Hubbard, in 1828, nearly confirmed the same weights. My own authority states that, taking a breadth of 10 miles along the sea-coast, from Boston to Grimsby, many thousand acres of grass-land have been ploughed up since the Tithe Apportionment Act came into force, and thereby become arable, and are not yet sufficiently weakened to require turnips or choice seeds. There the decrease of sheep is estimated at 20,000, but, in the Wold districts, high farming has increased the number so as fully to make up the deficiency, at the same time that the wool has become more plentiful and finer. A most respectable correspondent assures me that he has had tup fleeces weighing 20 lbs. and that on an average those of this class weigh from 12 to 14 lbs. It may, however, be fairly deduced that the increase of sheep in Lincoln, within the last 20 years, has been inconsiderable, although the fleece has materially gained both in weight and quality. Having referred my Lincolnshire report to the same valued friend and correspondent, Samuel Vessey, Esq., of Manor House, Halton, he assures me that the 20,000 more fleeces, now clipped in the Wold districts, weigh 9 lbs. each, this being the average weight on marsh lands. At the same time he inclosed me the butcher's certificate of the weights of a haunch and shoulder of mutton, cut from one of his own sheep, slaughtered on the 11th of December, 1849, and sold in the Boston market. The haunch weighed 61 and the shoulder 51½ lbs.!

In Gloucester the increase of sheep is estimated at 15 to 20 per cent., with little or no variation in the weight of fleece, rated at 6 lbs. Notwithstanding this increase in numbers, it is observed that there more wool is not now clipped than formerly, owing to so many sheep being killed before shorn, the majority of which are fat tegs, and the extra wool is thus pulled by the fellmongers.

In Leicester Mr Luccock rated the fleece at 3½ and Mr Hubbard at 6 lbs. It is now estimated at 5¼, having been rendered lighter by a cross with Downs. For several years, prior to 1849, there had been a gradual increase in the number of sheep, but, within the last two years, owing to the enlarged general consumption, as well as the slaughter of lambs and yearling sheep to a greater extent than was ever remembered, the stock in several districts is supposed to have diminished. Still the number is considerably larger than in 1828.

In Norfolk the fleece of the ordinary breed averages 3¾, that of the Down hogget 4¼ and the half-bred Leicester hogget 5¼. Owing to the increase of sheep and greater weight of fleece, added to the large proportion of half-bred Leicesters, introduced since 1828, it may be safely concluded that the quantity of wool, produced in this county, is much larger now than formerly.

Mr Luccock estimated the fleece in Cambridge at 4 and Mr Hubbard at 4½ lbs. It is now set down at from 6 to 7, and in some instances from 8 to 9 lbs. The increase in the number of sheep has been considerable, chiefly owing to the improved system of farming.

In Hertford Mr Luccock estimated the fleece at 4¼ and Mr Hubbard at 5 lbs. It has now risen to 6 and 7 lbs., and the number of sheep, within the last 20 years, I am confidently told from 80 to 100 per cent., at the same time that the weight of mutton has also advanced from 40 to 50 per cent.

Dorset has long been considered among our foremost counties in growing wool, and the Down sheep are there thought to have increased 30 per cent. in number and the fleece ½ lb., while the old Dorset horn breed, found in distant parts of the county and feeding on pasture lands, have only increased from 15 to 20 per cent. in number and their fleeces ¼ lb. Within 40 years, the total increase in flocks is reported to have been equal to 100 per cent. and the weight of the Down fleece, on all light arable soils, full 1¼ lb., say from 2¼ to 3½. On all dry soils the Dorset breed has been supplanted by the Downs, as the farmers are thus enabled to keep a larger and more profitable number of stock.

An intelligent and experienced resident, writing from Devizes, under date of May 1st, 1851, gives the following assurance. "The almost universal opinion, among our most intelligent farmers and dealers, is that the number of sheep, kept in the county of Wilts, has increased about 15 per cent. during the last 20 years. We also calculate that there is an increase of from 10 to 15 per cent. in the average weight per fleece. In our neighbourhood this now is about 4 lbs. for tegs, and 2¾ for ewes."

Another equally respectable authority, writing from Warminster under the same date, after all necessary inquiries on the spot expresses his sentiments in these words. "Among the largest flock-masters in the county of Wilts, the general opinion is, that the increase of sheep will average from 15 to 20 per cent. since 1828, in consequence of large tracks of land upon our Downs being brought into a high state of cultivation. Inclosures, accompanied by the introduction of swedes, turnips and other vegetables suitable for sheep, have also been the means of augmenting the weight of the fleece, in many instances to the extent of 2 lbs. Formerly many of the ewes would not carry more than 2 lbs., but the old breeders, whose wool I have regularly purchased since the period named, assure me that they now average 3½ lbs., and in many instances that the tegs go as far as 5. As against weight, in the olden times, it should however be remarked that formerly lambs were shorn which threw a large quantity of that class of wool into our market, but now, in this county at least, it has almost wholly disappeared."

From Devonshire the assurance is, that the increased number of sheep, since 1828, has been equal to 20 per cent., 40 in the weight of meat, and 3 lbs. in that of the fleece, the present average being 9 lbs. in the grease.

In Cumberland and Westmoreland Mr Luccock averaged the fleece at 3¾ and Mr Hubbard at 5 lbs. Within the last 20 years the Moor wool, or Fell stock are reported to have decreased ⅓, while the increase in the better bred is about ⅔. The quality of wool is improved and lighter, and the increase of stock estimated from 10 to 15 per cent.

Derby is a dairy county, and in consequence of sheep being there considered as interfering with the cow pastures, they are not now so numerous as formerly. The inclosures of commons and sheep-walks have also added to the diminution. The rot and epidemics again lessened the number, and the farmers have not since replenished their stock. The average weight per fleece is estimated at 6 lbs., which Mr Luccock returned at only 3.

In Somersetshire the number of sheep is represented as having considerably increased, some persons going so far as to say that it has nearly doubled; but, within the last 20 years, it is not thought that there has been any material alteration in the weight of fleeces. The present average is, cross breds 4 to 5, and Notts 5½ to 7 lbs.

In Cornwall the increase in the number of sheep, since 1828, is estimated at 30 per cent. and in the weight of fleece 1½ lbs., the present average being about 7 lbs.

In Worcestershire the increase of sheep, since 1828, is supposed to be from 10 to 15 per cent., and in the weight of fleece 1 lb., the present average being quoted at 5½ lbs.

Since the same period in Hampshire the stock of sheep is believed to have increased ⅓ and the weight of fleece ½ lb. The sheep bred in the Isle of Wight are reported to be 27,000, and the number brought there 8,000, making total stock 35,000. The number of tods of wool produced is 5,000 and fell wool 2,100—total 7,100 tods. The lambs sent out of the island are estimated at 5,000.

In Bedford the increase of sheep is reported at about 20 per cent. within the last 20 years, and this is attributed to the custom of fattening the lambs so as to shear their tegs the first year. The average weight of Leicester and half-bred fleeces is about 6 lbs. while the proportion of Downs may be taken at a 4th or 5th of the total number in the county, the fleeces of which average 4 lbs.

In Berkshire the clip of wool is about the same as it has been for the last 15 years, 1 sheep to the acre being the usual calculation. The average weight of fleece, tegs and ewes, in the districts where Downs are kept is 3½lbs., but much heavier in those where long-woolled sheep are preferred. More sheep are avowedly killed every year, a proof that flocks have increased.

Sussex does not appear to have materially augmented her flocks since 1828, but the fleece has improved ½ lb. in weight and now averages 4 lbs.

On Romney Marsh, that remarkable tract of land in the S. part of Kent, it is not thought that the increase in the number of sheep within the last 20 years has been much, at least the wool-staplers think so, but it is to be borne in mind that more are now sent up to the London market. The fleeces average from 5½ to 6 lbs., and the carcase 90 lbs.

This district, consisting of 40,000 acres of pasture and 10,000 of arable land, is capable of supporting 5 sheep per acre in summer and 2 in winter, and the ewes produce 400 to every 1,000.

The Brecon Hill sheep bear fleeces of 2½ and Radnors 4 lbs., while in the lowlands the first yield 4½ and the second the same. The carcase of the Brecon Hill sheep is 11 lbs. per quarter and Radnors 15, while on the lowlands the same usually average 18. The hill sheep are represented to be ½ more now than formerly.

The Shropshire flocks, it is believed, have increased from 10 to 15 per cent., within the period specified, and fleeces improved 1½ to 2 lbs. The present average is from 5 to 6 lbs.

As regards quantity, Yorkshire, the largest county in England, has always ranked second in the production of wool, and since 1805, undoubtedly the flocks have considerably increased, at the same time it is acknowledged that, in order to supply the wants of a rapidly growing population, the slaughter has nearly kept pace with the augmented numbers. In reference to the weight of fleece the introduction of a purer race has lightened it, while a cross with the Hampshire breed has tended to give it weight. These points considered, the conclusion is decidedly in favour of a heavier return of wool from the same number of sheep.

My report from Ipswich states that the sheep in Suffolk may be taken at 600,000, and since 1828 the increase per fleece is ½ lb., caused by the introduction of half-bred Downs and Leicesters, the average weight being at present 4¾ lbs.

In Herefordshire I am assured that in numbers the flocks have increased three-fold, and the old Ryeland fleece, which formerly averaged only 2½ lbs., by a cross with the Leicester breed now reaches 4½. All wools are lower in quality, but much increased in quantity.

Nothing is so difficult as to obtain detailed information on this subject from Scotland. From the inquiries instituted in Aberdeen and Inverness, I am led to believe that in the first-named county there is little difference in numbers within the last 35 years. In the high districts, the sheep are all black-faced and not smeared, while in the lowlands half-bred and Cheviots have been partially introduced. The same remarks apply to the high grounds in Forfarshire, where there are large flocks of black-faced sheep, but few breeding stocks, the situation and climate being more adapted for wedder flocks. In the lowlands, or arable districts of Lanarkshire, there has been a remarkable increase in the number kept, the kinds being principally half-bred and Cheviots.

The same remarks are applicable to Fifeshire, where, it is said, as many sheets of wool are now grown, as there were stones of it 20 years ago. In East and West Lothian the increase in numbers is stated at 10 per cent., and, by crossing and extra feeding, in the fleece the same result has been obtained to the extent of 1 lb. In the upper districts of Lanarkshire, a breeding country, and which, although much exposed, is reputed to be unequalled in its black-faced breed, there does not appear to be any striking difference in the numbers kept, and the other breeding districts of Scotland are represented to be in a similar position. A large breadth of land has there been broken up and rendered arable, thus tending to counterbalance any material increase, arising out of sheep-farming.

The change, most remarkable in Scotland, is the decrease in the black-faced breed, accompanied by the substitution of the Cheviot. I am credibly informed that, within the last 30 years, the decrease of the first is nearly one-half, and very few crosses are kept, except where stocks are in a transition from black-faced to Cheviot. The bulk of the wool is now white, whereas formerly it was all, or nearly all smeared. It is sold by the stone of 24 lbs.

From the best information which I have been able to collect, it would result that while in the Highlands there has been a marked decrease in the black-faced flocks, much above a corresponding increase has taken place in Cheviot, Leicester and half-breds, that is, a cross between the two latter. It is considered that the Leicester and half-breds answer well in Scotland, and the wool is pronounced little inferior to the pure breed. Crossing there has been carried to a considerable extent, generally, it is estimated, to half the amount of existing stocks, and in Ross-shire equal to two-thirds. In the Perthshire Highlands and Argyleshire, there has not been much crossing, except in the Western part of the latter, where the experiment is now actively going on.

On the low grounds of Nairn and Morayshire, sheep have only been introduced within the last 20 years, and the stock of Leicester crosses there is supposed to amount to 10,000. In the remote districts, there is no possible means of obtaining correct numbers; but, however remarkable the change in original stocks may have been, when the greater consumption of mutton is considered, together with the large quantity sent from Scotland to the English market, it may be safely concluded that, in so industrious and thrifty a portion of the United Kingdom, considerably more sheep are now kept than formerly. By practical men it is at the same time admitted that, by crossing between the black-faced and Cheviot, the weight of fleece has gained 20, and between Cheviot and Leicester 30 per cent.

From all the evidence before me, founded upon information gathered from authentic sources, two important facts result, 1st, that our flocks in England, Wales and Scotland, have gradually increased within the last 20 years; and 2nd, that the fleece throughout is materially improved in weight. As regards numbers, Ireland seems to be an exception, possibly owing to the impoverished and unsettled state of that country, as well as the changes which have there taken place among the landed proprietors. Sheep, besides, are not a favourite stock among the Irish, although they are now coming much more into notice among the farmers. At the same time I cannot help thinking that the number, officially returned for 1849, and corresponding to a population of 8 millions, is very small.

At the commencement of last May, two important cattle-fairs were held in Ireland, one at Ballinasloe and the other in King's County, at both of which remunerative prices were obtained. The supply of sheep was represented to be much larger than usual, and hoggets sold for 20s. to 30s., and 2 year old from 42s. to 45s. Fat sheep were not numerous, but readily fetched prices up to 6d. per lb. The advance in the price of Irish live stock continues. In a report, dated May 17th, is this testimonial:—"It is gratifying to find that the recent advance in the price of stock is not limited to any particular locality, and that the marked improvement in the prospects of graziers appears to be general, as far as Ireland is concerned. Even in the remote West, at the fair of Bellina, the signs of returning prosperity were visible in the amount of business done at the current rise of rates, and from the fine appearance of animals offered for sale, owing to the improved method of feeding, the result of a more extensive system of green-cropping, and the adoption generally of the rotation plan in the cultivation of land. Fat cows went as high as 16 guineas, and one breeder refused 6*l.* a-head for a lot of prime heifers. Sheep, of the finest quality, rated from 46s. to 48s., and the demand for all kinds was good." As a curious circumstance, it may be mentioned that the importation of sheep has commenced in Ireland. In the middle of last May, a drove of between 700 and 800 arrived in Dublin by one of the Liverpool steamers, for transmission to the county of Wicklow. They were of the Cumberland breed, and suited for light or mountain pastures. Large droves have also been imported into the West of Ireland, from Scotland and the North of England.

With few exceptions, the progress made in the English and Scotch counties is perceptible, and in no one of them has any material decrease occurred, except Derby, and that is satisfactorily accounted for. Within the last quarter of a century, a remarkable change has, however, taken place both in the breeding of sheep and the collecting of wool. Inclosures have diminished the range of open pastures, and a much larger proportion of land is under tillage: but in the new system of farming sheep are found extremely useful, at the same time that in their most essential properties they improve.

I may here be allowed to borrow an illustrative example. "The chief characteristics of Dorset farming," it has justly been remarked, "are the breeding of sheep and folding them for the production of corn. The thin chalk lands of that county naturally yield a scanty herbage, but when tilled, well manured and the alternate crops are eaten on the ground by sheep, they bring good returns to the cultivator. The tillage farms are extensive, and most of them include a range of Down or sheep-walk, which is not permitted to be ploughed without the consent of the landlord. On this the ewes are fed during the day in summer, and driven to the arable grounds, where they are folded at night, thus carrying the dung of the grass-lands on the arable to enrich it. The points, chiefly considered, are the production of wheat and barley, and to promote these the breeding and management of sheep, together with the other operations of the farm, are subordinate. The maxim is, the greater the number of sheep the greater the quantity of corn; so that the course of cropping, though uniform in principle, is varied in detail, according to the greater or less extent of permanent grass, or Down land, which a farm contains. Thus a farm, consisting of one half of Down land and one half of arable, is farmed on the four-fold system; while another, with only one-third of Down land and two-thirds of arable, may be farmed on the five-field rotation, both systems being thus made to afford nearly an equal proportion of grass-land for the feeding of sheep."*

In some counties, sheep have thus become almost essential to an increased production of corn, and their utility, in a double sense, was never before so generally understood. An intelligent correspondent, writing from Hereford, under the date of the 9th of last April, expresses himself thus—" I do not think that there is much more land in this county brought into cultivation, but the system of farming is altogether changed. A large quantity of turnips is now grown, and has been increasing for many years, and farmers find it their interest to keep more sheep to consume them and thereby manure the land. The increase in the weight of wool and mutton is in consequence of crossing the breed; but here, for the last two years, farmers have been crossing back to closer and finer wool; in fact doing all they can to suit the consuming market."

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* Report of the Times Commissioners on the Agricultural Districts of England, dated Dorchester, February 8th, 1851.

The practice of farming varies in our several counties, but the assistance, derived from sheep, is acknowledged in all. A practical man, speaking of Hertfordshire, in a letter dated Royston, the 29th of last March, remarks thus—" You ask my opinion as to the increase in the number of sheep in this district, since 1828. I should say, and might venture a decided opinion, that the increase has been *very great*, owing to the system of farming having been much improved and the number of parishes inclosed since that period, for every inclosure adds greatly to the weight of both wool and mutton. From the almost universal practice, among good farmers, of beginning to fatten lambs when grown to any size on artificial food, the fleeces are taken off as hoggets in the spring of the following year, and a large weight of this class of wool is thereby produced. The stock is chiefly Leicester, with a slight cross of half-bred, and the hoggets, when clean and well washed, average about 9½ lbs. per fleece. In the counties, to which I more particularly refer, viz., Herts, Bedford and Cambridgeshire, very little Down Wool is now grown. In Bedford and Cambridgeshire, four-fifths of the sheep, I am inclined to believe, are Leicesters, while in Herts the larger proportion is half-bred. In 1828, Leicester hoggs averaged only 6 to 7 lbs. now they yield from 8 to 9, and the half-breds have risen in the same proportion. Downs have been crossed with large Hampshire rams, and the fleeces are considerably heavier, the length of staple, for combing purposes, adding more value than the quality."

The increased consumption of mutton, coupled with the facilities of conveying it to market, has in like manner contributed to extend our flocks. Our home-production is in fact much larger than is generally thought. A reflecting and experienced correspondent, writing to me from Bradford on this subject, under the date of last April, expresses his opinion in these words:—

"It is almost universally admitted that Mr Luccock's calculation of the quantity of wool, grown in 1805, was erroneous, and that it much exceeded his statement. That a very considerable increase, since that period, has taken place in its growth is also undoubted; but the simultaneous slaughter has nearly kept pace with it, this sacrifice being requisite to supply the wants of a rapidly increasing population. With regard to weight, it is known that the introduction of a purer race into the counties of Lincoln, Cambridge, Yorkshire, &c., has lightened the fleece and to a certain extent brought down the average, as compared with the old standard there; but, on the other hand, the pure Down counties have introduced a cross with the Hampshire breed, thus tending to produce a heavier fleece. When these points are duly considered, the balance decidedly must be in favour of a heavier return of wool from the same number of sheep. So far as my own observations are brought to bear upon this subject, I am inclined to think that, on an average, the fleeces are unquestionably heavier."

"It is, however, apparent that the increased means for working up British wool are now equal to our entire production, and even much more, and at no former period was this fact so clearly manifested. The last census, although it is to be hoped furnishing less reliable data than the one now in the course of progress, nevertheless affords some elucidations, as regards the main question at issue, which should not be wholly disregarded. Its calculation, in reference to England, if I mistake not, sets down the total number of farmers at 212,455, holding on an average 151 acres each, and leaving us to take the ratio of 1 sheep per acre and the fleece at 5 lbs., it would follow that the product would be equal to 668,348 packs: but I am of opinion that the entire production of Great Britain and Ireland is upwards of 950,000 packs, and that, of this quantity, taking Bradford as the centre and mart of the Worsted Trade, and within a radius of 12 miles, upwards of 400 000 packs are there annually consumed."

This estimate of 950,000 packs would show our total home production to be about 228,950,000 lbs., and in all probability this is near the mark. It is admitted that, during the last half century, the population of the United Kingdom has increased 100 per cent., while in the same interval our imports have advanced more than threefold, our exports eightfold and our production tenfold. The same combined causes have tended to augment our flocks, and consequently enlarged the growth of wool, but in what precise ratio it would be impossible to say. Assuming, however, for my present purpose, that the population of the British Isles is 30 millions, and that each individual annually consumes at the rate of half a sheep, the total number in that case slaughtered would be 15 millions. To afford this supply, and making every allowance for casualties, 40 millions of breeding stock would be required, this rate of increase being little more than 40 per cent.

As far as I can judge, this is approximately our present standard, and on these premises we annually clip 40 millions of sheep, while the fleeces of 15 millions more, slaughtered, pass through the hands of fellmongers to the consumer. Hence it would follow that we have the yearly fleeces of 55 millions of domestic sheep to work upon, averaging, it may be safely admitted, 5 lbs. each. The basis of our manufactures, as far as regards home-grown wool, would thus be about 275,000,000 lbs., which little more than confirms my Bradford correspondent's estimate, and to these are to be added 77 millions of lbs. more, imported. From these two amounts are to be deducted 1st, 4,000,000 lbs. of British wool exported, and 2ndly, 12,500,000 lbs. of Colonial, re-exported, thus leaving the balance, annually consumed in our looms and for domestic purposes, at about 335,000,000 lbs., or nearly one half of the total amount of the cotton which we import.

As a further illustration of the extent to which this branch of industry is carried, I may be allowed to add that, as far as we can be guided by official authority, at the close of 1849 there were 875 factories in England and Wales employed in spinning wool, of which 532 were in Yorkshire; 49 in Gloucester; 54 in Montgomery; 30 in Glamorgan; 22 in Wiltshire; 18 in Somerset; 16 in Merioneth; 17 in Carmarthen; 13 in Devon, &c. These factories employed 784,054 spindles, 19,006 males, and 11,546 females—total persons employed, 30,552.

The factories employed in weaving wool were 9, all in Yorkshire, of which the power-looms were 245, and persons employed 333.

The factories engaged in spinning and weaving wool, were 207, of which 180 were in Yorkshire, having 570,927 spindles, 8,925 power-looms, and employing 26,556 persons, of whom 11,958 were females.

The factories, not included in either of the above descriptions, were 215, of which 159 were in Yorkshire; 20 in Gloucester; 10 in Somerset, &c., employing 1,710 spindles and 6,985 persons.

Our total Woollen Factories were then returned at 1,306; the number of spindles at 1,356,691; power-looms, 9,170; males employed, 39,468, and females 24,958—total persons employed, 64,426.

The Return of Worsted Factories, employed in spinning, was 222, of which 163 were in Yorkshire; 19 in Leicester; 11 in Worcester, &c. Those engaged in weaving were 97, of which 90 were in Yorkshire, 6 in Norfolk, &c.; and in spinning and weaving 155, of which 149 were in Yorkshire, 4 in Lancaster, &c.—The factories not included in either of the two above descriptions, were 19, of which 16 were in Yorkshire, and 3 in Leicester. Our total Worsted Factories were thus 493; the number of spindles 864,874, and power-looms 32,617, employing males 26,738, and females 52,177—total, 78,915 persons employed.

When the additional number of collectors and sorters of the raw material, of packers and carriers both before and after its manufacture, are taken into account, together with the providers of fuel and other necessaries, engineers, as well as the workmen employed in buildings and repairs; and, after the manufactured article is in the market, the salesmen, retail dealers, tailors, seamstresses, &c., engaged in making up, and all earning a livelihood by their several pursuits, coupled with the amount of capital invested and the magnitude of our exports, some idea may be formed of the value and importance of our Woollen Manufactures.

By means of our double supply, besides quantity we have the advantage of variety. So remarkable a change in the appreciation of the Australian staple, as the one which within the last few years has been going on among our manufacturers, as well as those of the Continent, arose out of an altered taste in female dress, which first showed itself in France, when cumbrous and expensive silks were in great measure superseded by fine and light woollen textures, made from picked merino fleeces. The name of merino was originally given to these dresses, but the tendency of this altered taste acquired additional importance from the variety of imitations and mixtures with cotton, to which it led, thereby enabling ladies to be more economically and gracefully clad. The Wool Department, opened at the Exhibition, as many of my readers will have seen, at one view shows the variety of purposes to which this valuable raw material is applied. It embraces cloths, broad and narrow, quilts, blankets, various articles of clothing, serges, tartans, a variety of stuffs and other worsted textures, together with mixtures of wool with silk and cotton, as well as alpaca and mohair, blended with the same spun materials.

In my last publication I introduced a series of remarks on the recent discoveries and improvements in manufacturing machinery, as applied to the combing, spinning and weaving of wool, remarks which I obtained from an intelligent and experienced friend at Leeds, and I am proud to say that the facts, therein displayed, met not only with the approbation of the general reader, but also with the encomiums of several of my reviewers and other competent judges. Since then goods, superior in quality and execution, have been brought into use, the basis of which is partly Australian wool. Great pains have indeed been taken, and heavy expenses incurred, more particularly by the spirited men of Bradford and other parts of Yorkshire, in order to attain excellence in this extensive and useful branch of industry, in consequence of which the woollen cloths, sent out from their manufactories for the wearing of both sexes, are still better in texture, colour and design.

The *prestige* in favour of foreign taste, it has been noticed, is gradually weakening, or, I should rather say, has given way to sound and substantial manufactures of our own. Except in a few articles of luxury, suited only for the higher order, can it be alleged that foreigners now excel us, at the same time that it may safely be affirmed that the wants of the million and middle classes are better provided for by British hands. In the designs of lighter goods there is a marked improvement. Our manufacturers now-a-days devote their attention to the industrial arts, while the artisans, by whom they are assisted, looking with the eyes of practical men upon the workmanship and contrivances of other countries, apply the results of what they have studied and learnt to the work placed before them. In this respect the Industrial Exhibition will be of great public utility. By samples of choice textures from all countries, prepared in a spirit of emulation, being placed in one general depôt, our manufacturers, designers and working artisans will see things worthy of their imitation.

Although no new inventions in manufacturing machinery have been brought forward, within the last three years, some practical improvements are introduced in the old ones. It may here be proper to notice that a loom was lately constructed, which weaves two pieces of cloth at the same time, instead of one, both being completed in the time previously required for one, thereby saving half the labour. As regards colours equal progress is observable, but there is nothing singularly remarkable since the discovery of what is technically called the " rainbow dye," for which a patent was taken out about three years ago. Before this discovery all colours were distinct, whatever the pattern might be. This dye, or rather mode of dyeing, as it were, softens and blends colours like those of the rainbow, and has chiefly been used for stripes.

In reference to manufacturing machinery, I must not omit to notice the " Patent Wool Combing Machine," invented by G. E. Donisthorpe, Esq., of Leeds, and of which one is placed in the Exhibition. This is one of the most extraordinary, and at the same time useful, pieces of mechanism for which the present age is distinguished, whether regarded as specially beneficial to the worsted trade, or as likely to produce an important change in the general economy of preparing wool for spinning. From the specification, above given, it will have been understood that this machine is used for the purpose of combing wool, which, having been previously carded, or, according to the technical term, prepared into a sliver, goes through a process of drawing, which separates the long from the short fibres, at the same time that by the action of the machine the noils, burrs, and all unequal and objectionable portions are removed, and consequently leaving the most valuable part in a separate and distinct sliver, prepared for spinning into worsted yarns and the raw material thereby considerably enhanced in value.

I am given to understand that the cost of wool, passing through this process, does not exceed one farthing per pound, while the long and preferable portion is in value enhanced thirty-three per cent. To the worsted trade this invention will thus be highly important, and in an economical sense many changes, consequent thereon, are likely to take place in the general preparation of wool for the loom, which can thus be spun with a cleanliness and evenness, almost bordering on perfection. Wools, of an inferior quality, may also be used for the production of the finest goods by going through this process. It is equally expected that this machine will become extremely useful to the flax trade. It is represented that this machine combs, according to its quality, from 150 to 500 pounds of wool per day of ten hours, and will do the work of one hundred persons, requiring at the same time only the attention of a single girl.

The alterations, and consequently the improvements, which are constantly going on in our manufactures, in accordance with the inventive genius of the age, and more especially in those of wool, impose upon me the obligation of mentioning a new and rather singular mixture. We have recently heard of flax being blended with cotton by means of a new process in preparing it, but I have now to adduce an instance of hemp being so well mingled with sheep's wool, as to produce a really useful and ornamental texture. As far as I can understand, in order to prepare the hemp so as to amalgamate with the wool, it undergoes a chemical process, which enables its fibres to unite with those of the principal basis; thus, to all appearance, producing a cloth of equal tenour and similar in itself.

I have lately had shown to me a pattern of this kind of texture, which, although it appeared rather thin, was nevertheless so well interwoven that, for the moment, I could not but conjecture that it was entirely composed of wool. I have since learnt that a patent has been taken out for this invention, and on a further trial should it prove successful, the discovery will be of service to the Woollen Trade, by enabling the skilful manufacturer to diversify articles of apparel as they come into request, as well as placing him in a position to offer his goods at a cheaper rate, and by this means bring them nearer into competition with those made from cotton.

The returns of Wool, Colonial and Foreign, imported into the United Kingdom, the quantity re-exported and amount of Woollen Goods sent abroad, before presented by me, reached up to 1846, inclusive. In that year it will be seen (page 14) that our imports of Wool amounted to 65,255,462 lbs., whereas, in 1848, including alpaca, they rose to 70,864,847 lbs., that of Australian growth being derived thus:—New South Wales and Port Phillip 22,091,481 lbs ; Van Diemen's Land 4,955,968 ; South Australia 2,762,672 ; Western Australia 129,295 ; and New Zealand 95,151—total 30,034,567 lbs., or nearly one-half of the total amount imported. Of the whole quantity 6,575,584 lbs. were re-exported, viz.:—to Belgium 4,318,288lbs. ; the United States 1,159,045 ;

Holland 480,745; France 282,958; Hanseatic Towns 226,336; Sweden 61,850; Prussia 1,562; Mecklenburg 784; Italy 3,082; and Spain 2,400. The proportion of Australian chiefly went to Belgium, France, and Holland. The Americans take very little fine wool from us, their wants being chiefly confined to Mogador and other descriptions under 15*d.*

The principal foreign countries which, in 1848, supplied us, were, Hanseatic Towns (chiefly German wool) 14,428,723 lbs.; Russia (Northern Ports) 335,521, and Ports within the Black Sea 2,013,488; Denmark 1,381,356; Belgium 499,941; Portugal 782,689; Italy 739,737; Turkish Dominions, exclusive of Syria and Egypt, 467,780; Syria and Palestine 222,520; Egypt 583,810; Uruguay 3,251,563; Peru 2,375,783; Buenos Ayres 1,006,516; Chile 635,522; Spain 106,638; United States 55,992; France 127,553; Holland 91,247; Prussia 70,919; Iceland and Feroe Islands 120,538; Brazil 60,457; Greece 13,150; Morocco 38,735; and China 6,342 lbs.

Besides Australia, the other principal British Dependencies, from which in the same year we obtained supplies, were, Territories in India 5,997,435 lbs.; South Africa 3,497,250; Gibraltar (chiefly Mogador) 286,075; Malta 94,145; West Indies 7,934; and Mauritius 8,222. The quantity of British Sheep and Lamb's Wool, exported, in 1848, was 3,978,842 lbs., chiefly to Holland, Belgium, France, and even 7,642 lbs. were shipped to the United States.

In 1849, our importations of Sheep and Lamb's Wool, including Alpaca, advanced to 76,768,647 lbs., of which 35,879,171 were received from British Settlements in Australia; 11,789,570 from the Hanseatic Towns; 5,377,495 from British Possessions in South Africa; 4,182,853 from India; 4,786,120 from Russian Ports within the Black Sea, and 978,419 from the Northern Ports; from Peru 3,172,343; from Buenos Ayres 2,525,672; from Azores 917,318; Egypt and Ports in the Mediterranean 539,472; from the Channel Islands 503,413; from the United States 162,929; and smaller quantities from other countries.

The increase has chiefly been in Australian wools, while the decrease refers principally to German. Our exportations of the raw material are encouraging, and it is expected will materially advance during the current year. In the year ending January 5th, 1850, we exported 882,978 cwt., and in addition 12,324,415 lbs.; but in the one ended January 5th, 1851, we shipped 915,008 cwt.; besides 14,054,815 lbs. In the way of illustration it may be proper to remark that, in 1848, we only exported 3,978,842 lbs. of British sheep and lamb's wool, viz.: to France 1,882,308: Belgium 1,572,328; Holland 513,286; United States 7,642, and

Hanseatic Towns 2,488. The British Woollen Yarn exported was 8,429,152 lbs., principally to the Hanseatic Towns, Russia, Holland, Belgium, France, United States and Italy. Since then our exports have gradually increased, chiefly consisting of Australian wool. Besides the raw material, in the year ending January 5th, 1850, we exported 201,936*l.* of woollen manufactures, not made up, besides 14,583*l.* of articles partly made up; but during the same period, ending January 5th, 1851, there was a decline, say to 115,500*l.* in articles not made up, and to 11,584*l.* in those partly made up.

In the mean while, the results of our export trade in Woollen Manufactures has been greatly encouraging, and the home-market also continues to be a most bountiful consumer. Of this branch of our national industry the following are the comparative particulars recorded on authority.

				1850.	1851.
				£	£
Entered by the Piece .	*pieces*	2,391,184	2,778,724	4,642,582	5,383,062
Entered by the Yard .	*yards*	51,656,130	63,731,053	2,413,625	2,876,848
Stockings . .	*doz. pairs*	165,645	119,873	86,755	74,482
Of all other descriptions	*value*	. . .	. . .	199,761	250,467
Woollen Yarn . .	*cwts.*	105,116	123,151	1,090,223	1,451,093
				£8,432,946	£10,035,952

In 1847, the total official value of Imports into the United Kingdom was 90,921,866*l.*; in 1848, 93,547,134*l.*; and, in 1849, 105,874,607*l.* The value of the Produce and Manufactures of the United Kingdom exported was, in 1847, 58,842,377*l.*; in 1848, 52,849,455*l.*; and, in 1849, 63,596,025*l.* The total Exports were, in 1847, 146,167,146*l.*; in 1848, 150,985,794*l.*; and, in 1849, 190,101,394*l.*

During the course of the past year, upon the whole the Woollen Trade must have been satisfactory to all parties engaged in it—the grower, the importer and the manufacturer. In the spring the prices of most descriptions of sheep's wool rose considerably; but afterwards, from a variety of combined and partly incidental causes, among which the unsettled state of the North of Europe might be alleged, the prices attained flagged, or rather receded. In summer and autumn the early advance in fact seemed almost lost, when, in October, buyers came boldly forward, and with the year the market closed firmly, at prices 15 per cent. higher than they were at the termination of 1849. In the weight of wool, imported last year, the "Trade and Navigation Returns" show an increase in the quantities received from "British Possessions out of Europe," and a decrease in that obtained from other parts, as will be seen by the subjoined extract, corresponding to the years marked, ending the 5th of January in each.

		1850.	1851.
Sheep and Lamb's Wool from British Possessions out of Europe	*lbs.*	45,499,575	48,240,529
From other parts	*lbs.*	29,613,772	24,433,954
Total . . .		75,113,347	72,674,483

The Returns, issued by the Board of Trade for the month, ending the 5th of April, present favourable results. The declared value of Exports shows, as compared with the corresponding month of last year, an increase of 1,181,444*l.*, and of 1,599,533*l.*, as compared with the same month in 1849. The aggregate value of our Exports, during the first quarter of the current year, was 16,523,344*l.*, against 14,655,153*l.* in the like period of 1850, thus proving an increase of 1,868,191*l.* This evidence of prosperity is confirmed by the importations of our most essential raw materials. The increase in Woollen Manufactures, during the month, ending April 5th, has been equal to 52,891*l.*, and of Woollen Yarn 8,698*l.* In the same month in 1850, we imported 2,717,426 lbs. of wool, and during the same period, in 1851, 3,495,949 lbs., and exported, within the first brief interval 892,650 and the second 1,085,097 lbs.

The first series of Colonial Wool Sales, for this season, commenced on the 15th of May and terminated on the 7th of June, when 48,426 bales came into the market, viz.: 19,454 Port Phillip; 11,809 Sydney; 6,846 Van Diemen's Land; 2,747 South Australia; 126 Swan River; 8 New Zealand; 5,974 Cape of Good Hope; and 1462 East Indian. This large quantity found buyers at prices on an average equal to those obtained during the corresponding series of last year, although upon most descriptions there was a reduction of 1*d.* to 1½*d.* as compared with the February rates. Port Phillip wool, it will have been observed, bore the largest proportion, and being in good condition commanded great attention. Owing to the unfavourable season at clip time, it was expected that the Sydney wool would have come over in rather an indifferent condition. This, however, was not generally the case, although a more than usual proportion had been shipped in the grease and the burr prevailed in some parcels. The condition of the wool from Van Diemen's Land was more wasting than last season, and generally of short growth, so that our combing-wool buyers in great measure had to supply their wants from Port Phillip importations. There were some very superior parcels from Adelaide, which met with spirited competition. For Cape wools, of a good description, there was a fair demand, but much of that offered was inferior. East India wool was much inquired for, and sold at an advance upon former rates.

The quantity bought on foreign account is estimated at about 4,000 bales, which is less than the usual proportion. This is attributed partly to the influence of political affairs in France, and partly because lower prices were expected in the approaching Continental fairs. Advices from Breslau, of the 7th of June, state that the wool fair there was proceeding with great animation, the reduction in prices at the commencement having caused an active demand, so that the depreciation, as compared with last year's sales, at the above date was not more than 1½*d.* per lb. on the middling and lower sorts, and about 10 per cent on the highest.

Official Account, published by the Chamber of Commerce at Breslau. "Owing to political circumstances no good fair was expected here this season, nevertheless the number of buyers, who arrived, was so great that all the wool offered was sold at the following reductions:

6	to	10	Thalers upon Wool worth		68	to	78	Thalers.
8	„	12	„	do. do.	80	„	90	„
12	„	15	„	do. do.	95	„	110	„

or in English money:

2*d.*	to	3*d.*	per lb. upon Wool worth		2*s.* 3*d.*	to	2*s.* 6*d.*	
2½*d.*	„	4*d.*	„	do.	2*s.* 6½*d.*	„	2*s.* 10*d.*	
4*d.*	„	5*d.*	„	do.	3*s.* 0*d.*	„	3*s.* 6*d.*	

The entire stock was,	Old Wool	6,000	cwt.
	New do.	55,800	„
	Total cwt.	61,800	
The quantity offered last year being		68,000 "	

The annual wool fair, held at Berlin towards the middle of last June, is described as having been kept up with great spirit. The quantity offered was about 70,000 cwt., of which 60,000 are represented as having been sold at fully last year's prices. In some instances an advance of ½d. to 1d. per lb. had even been obtained. Among the inland manufacturers and combers there was an unusual competition, and they were by far the largest purchasers. The general condition of the wools was stated to be good, but the quantity, taken for England and France, smaller than heretofore.

From all the information which I have collected relative to the growth of wool in Germany, it appears that a considerable portion of land there is progressing towards cultivation, more grain, turnips, potatoes, &c. being raised, and consequently the sheep walks are annually diminishing. When this fact, added to the expense of winter fodder, is taken into account, it may be fairly inferred that the breeding of sheep will rather diminish than increase in Germany. From concurrent testimony it is also known that Australian combing wools, at the present time, are cheaper and better than any sorts produced in Germany at the same price, and the transit from Australia to England is now at a lower rate than even from Germany to a British port.

It may thus be confidently expected that Australian combing wool will hereafter form a leading feature in the extensive spinning manufactures of Germany, where it is already most favourably introduced. One of the most extensive woollen yarn establishments, in that country, belongs to Messrs Weiss and Sons, at Glucksbrum, near Meiningen. The same firm are also celebrated for their woollen yarn, or worsted, spun at Gotha, known as "Berlin Wool," which ladies here and on the Continent make into fancy articles. These spinners are reputed to consume at the rate of 6,000 cwt. annually.

At Psaffendorf, near Leipsic, there is also another establishment, called by the Germans *Kamm Wole-garn Spinnerei*, which has begun to consume Australian combing wool, and from the results of their business, last year, it appears that the joint proprietors received 10 per cent. on their capitals advanced, mainly attributable to the adoption of the new staple. In Silesia all sheep are smaller in size than in Saxony, but the wool is of a finer fibre and more silky. As a guidance to distant purchasers of improving stock, I am induced to add that the two most eminent flock-masters in Silesia are Prince Lygnowsky and Count Larisch, and that the ordinary prices of best sheep there are, for tups, from 7*l.* to 8*l.* each, and ewes, from 2*l.* to 2*l.* 10s. The expenses per head from their stations to Hamburg is about 5s. 6d., and thence to London nearly the same.

Although our importations of Colonial wools, within the last few years, have risen to the extent demonstrated in the preceding pages, there is every reason to infer, from what has already taken place in our own markets, supported by the increasing wealth and population of the British Empire, as well as by the progressive increase of foreigners coming over in the character of purchasers, that no apprehension can be entertained of the growth of this article exceeding the demand, so long as the producer attends to the improvement of his sheep and the preparation of his fleeces. Judging from my own experience, and in the way of a guidance to the distant grower, I take upon me to remark that a fair portion of imported wools are now purchased by foreigners, according to this standard. The French chiefly take that which is adapted to combing purposes, say from 1s. 2d. to 1s. 8d. per lb., with a moderate proportion of clothing wool. The Belgians also confine the principal part of their speculations to combing fleeces, at prices from 1s. 4d. to 1s. 6d. per lb. The Germans have hitherto been moderate buyers at our sales, but I venture to predict that, ere long, they will find it to their interest to supply themselves with an increased amount of our Colonial wools under 1s. 6d. per lb.

With corresponding exertions the Australians may thus rely on a safe market for their staple commodity, every year introducing it, more and more, to the notice of the manufacturer, both at home and abroad. The large body of emigrants, who within the last two years have left our shores for the wool-growing Colonies, together with the capital taken out by them, or since transmitted to their order, cannot fail to be attended with beneficial results. Seasonable accessions, of this kind, will tend to stimulate the energies of our fellow-subjects who have patiently endured the changes, perils, vicissitudes and hardships incidental to the adventurous life of the "bushman," in, to us, the New World of Australia. Dangers and disappointments, of various kinds, beset the difficult path of the pioneers of civilization and commerce, in those remote and secluded wilds, yet we have seen them, after braving all opposition, and overcoming the obstacles placed in their way, succeed in their truly national undertaking.

Through the effects of successful experiments, Australian wools have now come into prominent notice, and taken a decided place, not only in the English market but also on the Continent, and every evolving year they become an object of more importance, owing to the variety of useful purposes to which they can be applied. As seen from the returns and remarks, already presented, these wools not only rival the best Spanish Merino, but also, to a great extent, the Saxony fleeces, our importations of the first of which, as before noticed, have now nearly ceased, while those of the other every year sensibly decrease. And yet, such is the force of events, as well as the consequences of a right conception of circumstances, that flock-masters themselves do not hesitate to avow that the above-mentioned were the two stocks from which the best Australian wools, of the present day, were originally derived.

In Section V of the preceding work, I noticed the period when merinos from Spain were first introduced into the United States, and after an interval of 26 years improved breeds from Saxony, with the view of growing fine wool, at the same time marking the vicissitudes by which these two attempts were attended, eventually producing a failure. In 1830, as stated by me, it again became fashionable to grow fine wool in the United States, and the selection of good breeding stock became a matter of serious consideration, both with the government and the public. The subject, however, lingered, and till within the last few years no fixed plan of operations on a large scale was decided upon. The question next arose as to where pure and thorough stock could be best obtained, and, in order to avoid the consequences of previous errors, past experience was appealed to. It had been well remembered that, in the late experiments, the offspring of the sheep imported from Spain, when compared with those of the Saxon breed, were of a coarser nature. In some measure this might have been owing to the pasturage, as it would be out of the question to raise fine wool on an American prairie. After repeated meetings and discussions on the subject, it was at length determined that fresh breeding stock should be sought for in Germany, in preference to Spain, but here again a new difficulty arose as to the particular spot where the choice should be made. In the interval, the reputation of Saxony for the growth of fine wool had diminished and Silesia come into notice, where the two annual wool-fairs of Breslau continued to attract the attention of both growers and manufacturers.

From prudential motives, and not to take a false step in this almost national affair, select agents were sent to various parts of Europe, but more especially to Germany, in order to ascertain where the preferable breeds could be procured, and from the report of the functionary, commissioned to proceed to Silesia, as inserted in a work of the highest authority in the United States on agricultural subjects, I beg leave to introduce the subjoined extracts.* The opinions, therein expressed regarding the management of sheep and the improvement of breeds, are in perfect accordance with what I myself wrote, twenty years ago, and as some Australians have been in the habit of sending over to Saxony for breeding stock, and not unfrequently were disappointed after very heavy expences had been incurred, the hints here conveyed may be useful to them. Such an attainment as that of a preferable breed, even on the score of eventual profit, cannot fail to be desirable.

Before, however, I perform my promised task, in the way of illustration I ought to premise that the American Commissioner, sent to Silesia, in furtherance of his mission was present at the ninth General Meeting of German Agriculturists, held at Breslau on the 8th of September, 1845, "largely attended by as respectable, orderly and distinguished an audience (adds the Commissioner) as could anywhere be brought together for such a purpose. Several sovereigns sent deputies; all the leading Agricultural Societies in Germany were represented by their ablest men; professors of the most eminent Agricultural Schools, noblemen, large property-holders from Russia, Hungary, Bohemia, Austria, &c., together with the farmers in the neighbourhood, filled the list to nearly One Thousand." The President, Count Burghaus, opened the meeting with an appropriate address, giving a retrospective sketch of Silesian agriculture, when, after suitable officers had been elected, and six committees appointed to report upon the different sections, or divisions of subjects, submitted to the consideration of the Meeting, viz., "agriculture proper; raising live stock; the culture of the forest; technical branches; vine and fruit culture, and wool growing," the business of the day commenced.

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* "Annual Report of the Commissioner of Patents for the year 1847," submitted to the House of Representatives, referred to a Committee and printed at Washington in 1848. This voluminous work was presented to me in return for mine on Colonial Sheep and Wools.

As a preliminary proceeding, the President of the Society of the Directors of Estates made his report upon the last examination of the pupils, educated by them. The American visitor remarks that, he found the examination highly interesting, as it coincided exactly with his own views in regard to the importance of practical knowledge in the economy of farming. He then proceeds to give the entire series of the examinations, from which this opening extract is taken.

"Silesian baronial estates can be compared with any in the world; and in sheep breeding they have not yet found their equal. I hope I shall not be misunderstood. It is not my object to underrate the important services which science has rendered to agriculture; no, but I do not wish to propagate and add to that existing notion of the present day, that science in general, and especially that of agricultural chemistry, is the principal and only study by which a farmer is to increase his profits. Let him first pay attention to the different parts which constitute the whole, and he will discover many a fault which causes the diminished profit, and which yet no science nor *arcanum* in the world can remedy, except correct practical knowledge. The estates of noblemen, and the rich throughout the continent of Europe, are generally superintended by a person who has the necessary qualifications, namely: a thorough knowledge of agriculture; who is a good accountant, and acquainted with the usual technical branches; as brewing, distilleries, mills, &c. He lives at the estate and receives for his services, besides a salary, a certain quantity of produce, and sometimes a certain per centage on the nett profit. Most of them have been *educated for their business*, either at schools, or under the care of an able director of such baronial estates. As the number of estates is very considerable, there is a constant demand for such superintendents; and it is become a regular profession. It is obvious that the latter mode of education is not always the best, and many an estate-holder has obtained from these sources persons unfit to superintend large estates. Repeated complaints, therefore, determined the directors to have their pupils examined by a board of examiners, before they obtained their certificate as being able to conduct business themselves. In 1842, these directors or inspectors, as they are called, formed a society, which has for its object, to promote and finish the education of those young men entrusted to their care; but principally with the above-mentioned object of examining them after the time of their studies is finished; and they bound themselves, that none of the members of that society shall take a young man to instruct him, except he is willing to undergo an examination before a board of examiners of this society, at the end of his term. The society numbers above one hundred members. In 1845, while I was at Breslau, they held their yearly examination which was the third; the first was held in 1843. The society likewise extended the opportunity of examination even to such as have not been educated by members belonging to that association. It is a rule that no member, who has a pupil among those who are to be examined, can himself be an examiner.

"The examination came off on the 6th of September, 1845. The number of pupils to be examined was sixteen. After their names, birth-place, age, schools where they studied, &c., &c., were taken down, it was found that the oldest of the pupils was twenty-three, and the youngest sixteen years of age; the rest between seventeen and nineteen years. Five had finished their education at the Gymnasia; three of them left off at the Secunda; two at the Tertia, and three at the Real School; the rest were educated at some inferior schools.

"After the necessary preliminaries, the pupils were required to answer a number of questions in writing; after which they were taken to an estate called Rosenthal (Rosendale) near Breslau. In the yard the pupils were shown a waggon, which was marked on thirty-six parts; a plough, on thirty-five parts; a hacken (a kind of plough or cultivator), on five; a harrow on six parts, making eighty-two separate parts. Each pupil had to put down on paper the name of each part, as they were marked, to show whether he was acquainted with all the parts of the implements. After that, they had to show their skill in taking apart and putting together implements, and in case of breakage, to mention the most efficient way of repairing, &c. A sheep was then brought forward, and they were required to set down on paper answers to the following questions:

"1. Is this sheep healthy, and why?

"2. How old is this sheep?

"3. How is this age called in the shepherd language?

"Each one was next required to catch a sheep himself and examine it, whether it had the foot rot, and describe what are the signs of the foot rot. They had also to point out upon a sheep the places where the worst wool grows and on which place the best: to point out the places where the faults of wool are most liable to be inherited."

Several head of cattle were next brought before the pupils and corresponding questions propounded to them. After this they were examined upon the horse and then conducted to a barn, where they had to show their skill in making straw bands, cleaning grain, &c. They then accompanied their masters to the fields, where they were required to explain the several qualities of soils, sowing, reaping, &c. The cultivation of vegetables followed, next flax, &c.

After giving a full account of all the proceedings of the meeting, as well as of the festivities which attended it, in reference to wool the American Commissioner expresses himself in these words:—

"The fleeces, exhibited at the meeting at Breslau, were sent from the neighbourhood of Breslau and other parts of Prussian Silesia, from Mecklenburg, Hungary, Bohemia, Moravia and Saxony, for the purpose of showing their progress in fineness and thorough character of wool. They were spread out upon tables, in one of the large halls in the basement story of the university. Each fleece had a printed label, with the name and residence of the owner of the flock; the name of the stock from which the animal had sprung, its age, sex, and the weight of the fleece, in order to facilitate the examination and comparison among each other. The fleeces were the best the above-named countries could produce, and it was a rich treat to the connoisseur of wool; but they all differed in degree of fineness and in the character requisite to be pronounced perfect. Only two of the fleeces were considered as bearing all the signs of a perfect electoral wool. They were unquestionably all fine, but wanting either in 'evenness,' as the Silesian sheep-breeders call it, or in weight of the fleece, in length of the staple, and many of those demands which wool-growers make upon a flock of a constant and thorough character.

" Those fleeces which were pronounced perfect came from Prussian Silesia. This province has gained the reputation of producing not only the finest wool, but of being the only market where thorough blood can be obtained. Accordingly it is that to which wool-growers come, from near or far at home, to select and buy rams and ewes for the improvement of their flocks. Saxony has lost its former fame, a decline which arises partly from mismanagement and partly from other causes, as the low prices of wool, the division of commons, and the increase of population, whereby land becomes too valuable to be used for pastures. The degree of fineness in wool, to which the most renowned wool-growers of Silesia have carried it, can only be fully appreciated when wool of this period is compared with that of the years, when the merinos were first introduced into Silesia; and it shows very forcibly how long it takes to bring it, even when commenced with the best Spanish breed, to that high degree of perfection. Germany has proved to Spain that it is not the climate on which all depends—not the rich pastures, but enterprize, perseverance, and above all, intelligence, which have despoiled her of the golden fleece.

"Nature has done something for this province: its lands lie high and dry; the pasture has been improved by its high cultivation; the climate is neither too cold nor too warm, so that a thick cover is at no period inconvenient to the animal. This portion of Germany is known for its superior degree of intelligence among the large estate-holders; to which must be added the chief virtues of this Teutonic race, industry and perseverance. Kuchelau, Hennersdorf, Gross Sterlitz and Chrzelitz, are the names of the places where the finest stock is raised; and to these places rush the wool-growers of other countries, at the beginning of every year, when the surplus stock is sold, to obtain a few of these famous breeds.

" The prices for which some of the rams are sold seems enormous; and it will astonish some of our American farmers, when they are assured that a single ram is sold at from fifteen hundred to two thousand dollars, and then the buyer considers it a favour to obtain it at that price. The rich landholders of Russia, Hungary, Austria, &c. &c., seem to pride themselves in having it said that they have obtained a certain famous ram for an immense sum; and in this, like everything else, it is sometimes more for the name than for the intrinsic value of the object; and a ram from another place, for from four to six hundred dollars, would perhaps just as well answer their purpose. The most famous flocks are owned by Prince Lichnowsky. They have for forty years had the reputation of evenness and of possessing all the good qualities of merino; and he has never for a moment relinquished the improvement of his flocks. He has in Prussian Silesia about eight thousand head, from which he sells, every year, the surplus number, for the sum of forty thousand rix-dollars.* It is he who in that country obtains the highest price for his rams and ewes.

" Experience has shown that only *thorough* blood should be employed in the improvement of stock. This makes the purchasers very desirous to obtain animals from well-known flocks, the character of whose wool is thorough and constant, and answers all the demands of the manufacturers. Sometimes, in an inferior flock, an animal is found which has all the qualities of a super electoral; but such an animal will produce lambs inferior to himself, and full of the faults of his original parents. The importance of a good selection of merino sheep to breed from, is well known to every one who is engaged in improving the breed of domestic animals; but in the improvement of fine flocks, it is of a still higher moment; and it is then difficult to find the right kind to select from. It requires a well-practised eye to detect the faults on the parts where these are transmitted, and to select just such as are the best ones for flocks for the climate and local conditions."

The American Commissioner passes on to an " Historical Sketch of Sheep Culture," of which the following is an abstract:—

" Prussian Silesia, even before the introduction of merinos, always produced a wool of a superior quality and which commanded a higher price than that of neighbouring countries; but at that time the number of sheep was not very great, because the baronial estates had the exclusive right of keeping sheep, and pasturing them upon the property of the peasantry. At some of the estates, not one-fourth of the number they have at present were kept. About 100 years ago all Silesia had not one-fourth of the present number, which amounts to two and a half million. A Prussian cwt. of wool (nearly the same as the English) cost about thirty dollars, which at that period was a high price when we consider the higher value of silver; the average price of all the qualities of the present period amounts to fifty-two dollars per cwt. The increased revenue from wool, which the Prussian province of Silesia now enjoys, can be easily calculated from the above data, but this increase of revenue was only effected by the introduction of merino sheep. The first ones were brought there by Count Eckersdorf, who at an early period established a merino stock farm, for which Frederick the Great made him a present of a Spanish ram and a few ewes. In 1801 Count Haugwitz, then minister of state, obtained from William the Third, of Prussia, the best ram and ewes of a small flock which were imported direct from Spain; these few merinos formed the stock from which Silesia improved its flocks. The merino sheep of both these noblemen were pretty nearly of the same blood—large, vigorous animals, with a strong, elastic wool. Although the blood was thorough, and the character of the wool good, the number with which they commenced was too limited to produce a rapid progress in the increase and improvement of the flocks. The shepherds entrusted with them were ignorant in regard to a better mode of treatment, and those few precious animals were treated like the native breed, left to themselves and nature. The few samples, still existing from these first merinos, show, when compared with the wool of the best breed of the present period, how greatly the wool has been since improved, and how much the price of merino wool has been diminished. Since that time, the wool which then cost 165 Prussian thalers per cwt., would not at present bring ninety thalers.

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* A rix-dollar is 70 cents.

"The estate-holders of Silesia crossed, with great success, their native flocks by rams of these merino flocks; and the fact that rams with strong, elastic wool, and with a well-developed body, produce a more profitable breed, and in a shorter time, than those delicate animals with very thin and soft wool. was fully proved. The wool-growers of Silesia became also acquainted with the merinos of Saxony; they procured rams and ewes from these; but they had a different character from the Silesian; the wool was softer, and the sheep of a more delicate form and less in size. Silesia then had two distinct breeds—those of the flocks furnished by the King of Prussia, with a strong, elastic wool, and large, strong body; and the Saxon breed of small size, and with thin and soft wool. At that time the knowledge in wool was exceedingly limited. Very little attention was paid, also, to the form of the sheep; the only object was to obtain pure Spanish blood.

"The progressive demand for merino wool, and the success in breeding, induced all the estate-holders to improve their native flocks. Saxony was the only country where merinos could be got to supply the numerous applicants, and the flocks of the elector and those of the private estates of Klipphausen and Rocheburg furnished most of the imported animals. Those who had less means bought rams of a cross breed of native sheep and merinos, and in a short time few of the original country sheep could be seen. The improvement was principally carried on with rams of mixed blood, and with a very limited knowledge in breeding. It is a wonder that Silesia has arrived to that superior kind of wool which it now possesses. The different demands of the manufacturers, in regard to the nature of the wool, according to the articles they intended to produce from it, in the beginning misled some of the wool-growers, and induced them to make changes, and to increase the fineness of the fleeces, which gave it a tendency to *twist* and *felt;* but this was only in a few flocks, and if such a fault crept into a breed, the original thorough flock always offered a sure remedy. Gradually the Silesian wool-growers brought their wool to a quality which answered all the demands of the manufacturers, in cloth and various new styles of woollen stuffs, and attracted the buyers from all countries to supply their wants.

"The Silesian wool passed through different stages, in consequence of inexperience, till it came to the state of perfection just mentioned. From 1785 to 1805 was the period when the first Spanish merinos were introduced, and when the wool-growers were entirely ignorant in the knowledge of wool and management of merinos. From 1805 to 1815 was the period when the estate-holders of Silesia saw the advantage of raising them, and when the difference of merino and common wool began to be more understood; when, in the formation of the staple, a great number of curves of the merino wool hair were considered essential characters for fineness. At that period the wool-growers travelled for information, and brought merinos from Saxony into Silesia. From 1815 to 1825 was the third stage of the Silesian wool culture. The great desire then was extreme fineness; they overlooked many other very valuable qualities of the wool, and the large size and vigour of the animals. The high price of 126 dollars per cwt. caused this error. With the highest degree of fineness, great softness had to be combined; the Saxon breed, which was called *electoral.* combined these qualities. Such sheep were employed in crossing; consequently the finest Silesian consisted of thin-fleeced, delicate animals, which, besides a deficiency in wool, were liable to all sorts of diseases.

"The period from 1825 to 1830 may be called the test for the German wool-growers, and particularly for the Silesian. In that period the price of wool sunk exceedingly low, and it appeared as if England had taken leave for ever of the German wool market, and that she supplied herself from her colonies sufficiently for her wants. Many were affrighted and began to diminish their flocks, and changed their whole system of farming. It produced a crisis, and their attention was principally directed to an increase of wool in the fleece, to compensate for the loss sustained in the prices. This crisis operated very beneficially upon the whole system of breeding merinos; the wool-growers. instead of aiming at the highest degree of fineness, had now a greater quantity of wool in view. This was the commencement of a system which developed itself to much more advantage afterwards. Finally came the fifth stage and the present state of the Silesian wool-growing systems, which has for its object to produce not only the finest and softest wool, but in great quantity; and besides a high degree of softness and elasticity and nerve is not overlooked, whereby not only the value of wool, but the weight and volume also are enhanced, and these precious qualities are all combined in the flock of Prince Lichnowsky, and in such flocks as have been reared from this famous breed.

"During these various periods the Silesian wool-growers have obtained great experience in breeding merinos, and in the nature and character of wool. Societies of wool-growers were formed, in the meetings of which the most important questions were discussed, experience and facts made known, and they educated superintendents and shepherds for this branch of husbandry—all which has given them an advantage over other countries, and which it will be difficult to take from them. Spain never will be able to obtain the golden fleece again, and other countries may strive for ever, and perhaps Silesia will be always in the advance. In the mean time the improvements of the farms were not neglected; pastures were sown with grass and clover, and large quantities of fodder were housed for the winter, which amply supplied the flocks with food. Through a proper culture of pasture-land they were able not only to furnish a more abundant food, but a more healthy one. They used only the seed of such plants as perfectly agreed with the nature of sheep; the comparatively few cases of disease sufficiently prove this. Another advantage was gained by this system adopted of improving the pasture-land; the wool developed itself more perfectly, and it is an established fact, that the better and more regularly the sheep are fed and taken care of, the more uniform and healthy the wool becomes, and its superior qualities remain without deterioration.

"Silesia can no longer increase its number of sheep; its whole farming system has been improved with a view of keeping the greatest number of sheep possible under any circumstances. In regard to quality there is yet a great deal to be done in Silesia, notwithstanding its superiority over other countries in that respect. The above-mentioned desirable qualities of wool which some flocks possess, are not to be found in all of them. There is about one-tenth of the whole number which comes under this superior class, the remaining nine-tenths of Silesian flocks are in different stages of improvement, and to eradicate the various faults of wool from these flocks, and bring it to what is called an even character, will be the work of years.

"The stables for sheep, with few exceptions, are very spacious and well suited for the object. All the necessary implements and utensils are provided. Order and cleanliness exist everywhere. Fodder is plenty and stored away with care. Upon the lofts there is great order as to the way, how and when, the different kinds of fodder are to be given, and properly measured out. The shepherds, although not yet arrived at that degree of perfection which they should possess, are better than any in Europe.

"What great attention is here paid to the sheep during the period of coupling! It takes place in January, and summer lambs are considered the most advantageous. The superior qualities of the Silesian wool which is so much praised by the purchasers, are to be ascribed to the change of having the lambs in summer instead of winter. The choice of rams is made with all the acquired experience of the intelligent wool-grower himself; and if he thinks himself wanting in the necessary knowledge, he employs others who have the best reputation and make it a regular business. In all the stables the temperature is regulated by means of thermometers; because the Silesian wool-grower knows that a regulated temperature aids in the perfect development of the wool hair. The flocks are yearly thoroughly examined, and those assorted into a class, or classes, which have the least inheritable faults.

"The flocks are either under the immediate superintendency of the proprietors themselves, or of directors, who are educated agriculturists, and who have acquired a fondness for this branch, zealous to make such improvements as will bring the flock to perfection. Most of them, besides the knowledge of feeding and of the general treatment of merinos, have a thorough knowledge of wool, which can only be gained by long practice and by comparison of the best kinds. The sheep-master has the management of a certain number of flocks, and under him stands the shepherd, who executes the orders of his employer; and on him depends nearly everything in regard to the careful treatment in feeding; keeping them in suitable grounds during rainy weather, watching them carefully in respect to health; in short, upon him rests the principal success of the flocks. Such sheep-masters are exceedingly rare; and the wool-growers of Poland, Russia, and Hungary offer high salaries to induce the Silesian sheep-masters to take charge of their flocks.

"Much depends also upon the shepherds; they are exclusively brought up for that business, and their whole lifetime is devoted to it. They are familiar with the nature of every sheep in their flocks; and when one goes in the least lame, or forsakes its food, it is caught and examined and treated accordingly. They have sufficient knowledge of the mode of using their pasture-lands; they use them in succession, so that the sheep have always a fresh supply of food, and sufficient time is thus given for the grass to grow undisturbed; even the stubble pasture is used systematically. The written order for the mode of feeding—'how much, what kind, when it must be given,' &c.—is nailed up in the stables, and the shepherd pays strict attention to it. The quantity of fodder is exactly estimated, and the amount required for the winter season calculated, and an additional supply set aside in case of a late season, and for rainy and cold days. The lambs are numbered by marks in the ears, or by numbers fastened round their necks. The pedigrees are regularly kept up, so that the relationship of every animal can be given with great accuracy.

"Breeding fine merinos is not a kind of hobby among the Silesian farmers, which swallows up all the profits of the estate. No! it is made a profitable branch of the farm husbandry, which pays a good price for the fodder, litter, and labour bestowed upon it, in return for which the farm allows to the sheep account a fair price for the manure. The rotations are not exclusively for raising fodder crops, but to produce a great quantity of commercial plants, as for instance rape-seed, which was formerly not raised in Silesia, but which now amounts to several hundred thousand Prussian sheffels per year; and besides great quantities of grain are produced to supply the growing population with bread-stuffs.

"The number of sheep upon a given number of acres of land is, on an average, five sheep for four acres of plough land (the Germans call land which is used for raising crops, plough land, in distinction from meadow or pasture land). This, however, depends on the quality of land suitable for fodder crops and pastures, the number of acres of meadows, and the quality, and especially on the intelligence of the superintendent. Sometimes they keep more sheep, but never less than three for four acres. At the time wool brought such high prices, some of the estates kept only a few head of cattle; but since the prices of wool have diminished, sheep-breeding has not been considered nearly so profitable, and partly from the fact that they have ascertained by experience a great number of sheep operates injuriously upon the other branches of the farm, they have increased their stocks of cattle again. But, notwithstanding this diminished revenue through the decrease of the price of wool, it is looked upon as the most important and profitable branch of farm husbandry, consequently the proper degree of care and attention is paid to it. In Silesia the estates are not very extensive; the right of pasturing the sheep upon the property of the peasants has been abolished; the commons have been divided among the different farmers, and every estate-holder has to depend upon his own extent of property for the supply of pasture; extensive districts of pasture-land, as in Russia or Hungary, have been unknown to the Silesians for many years back."

From these details, it is evident that agriculture generally is pursued in Germany on scientific principles, supported by practical results, and that the breeding of sheep merits special attention. For each industrial department there is in fact a system of special training. Here the Australians have an opportunity of seeing what has been achieved by the judicious management of sheep, both in the British Isles and in Germany, the two countries where their improvement has been most pursued on scientific principles, accompanied by practical experience. What our Southern Colonies have already done in order to augment the supply of a raw material, so essentially necessary for the active employment of our looms, I have endeavoured to record; but, after cordially joining in the expression of gratitude, generally felt for the assistance so rendered, with all their boundless resources before them, I do not hesitate to say that the wool-growers of those favoured regions may still accomplish more by following the examples set before them.

With no ordinary feelings of pleasure, I notice that, at Sydney, the first step has been taken towards the introduction of the alpaca into Australia, as a new breeding stock, a project which I suggested in two succeeding pamphlets, addressed by me to the Australian Colonies in 1831 and 1840. From published documents it appears that, up to the close of last year, 1,445*l.* had for this purpose been subscribed, and that the Managing Committee were authorised to charter a vessel forthwith to proceed to Peru, with the view of obtaining alpacas to the amount covered. All necessary arrangements for the adventure were in fact made, and it had been decided that, on the return of the vessel to Sydney, "the cargo should be equitably allotted to each subscriber, at first cost, in proportion to which his paid-up money-interest in the adventure might entitle him, and that the list be closed when the sum of 2,000*l.* is reached."

Nothing could be more judicious and public-spirited than this demonstration; but the contemplated mode of distributing the animals, I cannot help remarking, by no means meets my view of the subject. The alpaca is accustomed to a hilly country, and requires a peculiar treatment, practically known only to the Indians of Peru, and 70 or 100 subscribers cannot be supposed to possess the suitable grounds, or to be in a condition to bestow the necessary care and attention upon their several allotments, so as to insure success.

When the question of naturalising the alpaca on high grounds in the British Isles was first agitated, in a spirit of jealousy and seeking to retain the monopoly for themselves, the Lima authorities prohibited the exportation of any number, as it were to render us dependent upon them for a supply of their useful wool, at the same time that the Indians are fast disappearing and their native flocks consequently on the decline. Since then great changes, occasioned by vicissitudes of an impressive kind, have taken place in the land of the Incas, followed by the introduction of a more liberal feeling and a more enlightened policy. It is, therefore, to be hoped that those restrictions have been removed, although my Sydney friends would have done well to ascertain the fact before they proceeded to ulterior operations.

Alpacas, in any number, can only be had on the upper coast, in the neighbourhood of Arica for example, and, if the Lima prohibitions continue in force, then only within the territory of Bolivia. But, when the necessary precautions have been observed in purchasing them, such as the selection of pure breed, proper age and condition, all which should have been thought of six months before the vessel was chartered, the animals having to come from an immense distance in the interior to the shipping port, another most essential requisite still remains to be attained. Two or three Peruvian shepherds should accompany the shipment, as well to attend to the embarkation, as the feeding and management of the animals on their voyage, and, after their arrival, these practical men would become valuable instructors in the choice of a locality and the general treatment of the stock confided to their care.

In order to realize the advantages expected, the alpacas obtained should, consequently, be kept together and not dispersed, until their treatment is properly understood and the experiment has been fairly tried. No ordinary tests are applicable to a new case of this kind. Above all things, the blending of the alpaca with the llama must be avoided. The latter is not a wool-bearing animal, and the ignorance of this fact was the great error into which the European experimentalists fell. Alpacas should be kept separate and distinct, and the means of obtaining them, of the best breed, the Australians possess preferably to any country on this side of Cape Horn, if they only set the proper engines to work.

In the Australian Colonies the standard of intelligence rises every year, and so does the activity of the inhabitants in prosecuting all kinds of useful ameliorations, as well as in devising means to augment their local resources; and if they could hereafter add to our supply of alpaca wool, now so generally and so favourably introduced, more especially taking into account the chances to which our present, and indeed only source is exposed, they will render one of the greatest services to the mother-country that possibly could be wished. It is also understood that a strong feeling prevails in Van Diemen's Land to introduce the alpaca, which, as being a more hilly country, might possibly be a preferable locality. Australia exhibits a remarkable view of the uninterrupted progress which has distinguished the various sections of that insular continent since the introduction of sheep, and it is to be hoped that the inhabitants, now that they are more numerous and enlightened, will never lose sight of the means by which they have risen to their present state of prosperity.

AUSTRALIA.

NEW SOUTH WALES AND PORT PHILLIP.

As these two sections, although in some respects separately administered, still continued united in the last Statistical Returns compiled by authority, I am obliged to place them under one head, with specific references to each.* I should, however, observe that according to accounts, since received from Port Phillip, the intelligence of the separation of that Province from the Sydney Government, in virtue of the Australian Colonies Bill, had caused much rejoicing. This auspicious event had been celebrated by public holidays and general festivities. Port Phillip must therefore hereafter be considered as a separate Colony, under the name of Victoria.

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* Vide 'Reports on the Past and Present State of Her Majesty's Colonial Possessions (1850),' Part II.

The statistical information, published here and in New South Wales, shows that, within the last ten years, the population of that Colony has nearly doubled, the total in 1840 having been returned at 129,463, whereas in 1849 it was set down at 246,299, of which number 101,470 were entered as females. The proportionate excess of males was much greater in 1840 than at present; but the subsequent diminution in the disparity is not to be attributed so much to the greater evenness of immigration, as to the extended duration of female life compared with that of the other sex, as well as to the fact of the children born being more nearly balanced. It is a remarkable circumstance, that out of 75,481 births in the Colony, since 1840, 38,310 were males, and 37,171 females, while out of 25,821 deaths, during the same period, 15,978 were males and only 9,843 females. In deaths, among adults, the number of males, in each year, is nearly double to that of females, doubtless owing to more prevailing habits of intemperance.

On the spot the increased number of marriages, in 1849, is taken as a proof of an improved social organization. As noticed in the first division of my work, New South Wales has experienced serious vicissitudes. After the commercial revulsions and consequent check to immigration which thereon followed, the new settlers arriving out decreased from 2,511 to 1,800, from which number there was little variation until 1849, when things materially changed. The year marked by the largest immigration was 1841, when it reached 22,483, while the lowest occurred in 1846, as it were a sequel to the banking and other disasters, when it fell to 402; but in 1849 the influx returned, and in that year 19,340 persons, with British blood in their veins, emigrated to New South Wales.

Since the foundation of the Colony, the total immigration from Europe appears to have been about 109,403, of whom 82,933 went over at the public expense, and at a cost, charged upon the Territorial Revenue from 1832 to 1849, of 1,309,447*l.* Since 1839 the religions of public emigrants have been recorded, and according to these returns the numbers entered were 46,869 Protestants, 23,337 Catholics, and 79 other denominations. As a proof of the importance of our Australian Colonies, in receiving our abject and unprotected population, it may be further stated that the number of orphan immigrants who arrived in the Sydney, or Middle District, at the close of 1849, was 1,943, at an expense of about 27,000*l.*, of whom 1,039 were hired at the Sydney Institution; 34 at Parramatta; 47 at Maitland; 9 at Port Macquarrie; 162 at Moreton Bay; 91 at Bathurst; 76 at Goulburn; 105 at Yass and Gundagai; 59 at Wollongong, and 6 at Twofold Bay.

In 1840 the total number of acres in crop, within the Colony, was 126,116, which in 1849 had risen to 181,612: say 90,706 of wheat; 23,368 of maize; 10,350 of barley; 8,378 of oats; 18 of millet; 5,289 of potatoes; 203 of rye; 458 of tobacco; and 42,842 of sown grasses, oats, and barley for hay. In 1843 the planting of the vine commenced, and at the close of 1849 within the two sister Colonies the number of acres, thus appropriated, amounted to 127, producing 101,063 gallons of wine, and 1,781 do. of brandy.

At the same period the live stock stood thus:—Sheep* 12,102,540; horses 121,859; horned cattle 1,810,213, and pigs 58,674. Of the sheep 2,061,138 were within the Sydney and Settled Districts, and 4,723,356 in the Commissioner's Districts, beyond the Settled Districts—total in the Sydney District 6,754,494. In Port Phillip and within the Settled Districts there were 703,825, and in the Commissioner's Districts, beyond the Settled Districts, 4,614,221—total in the Port Phillip District 5,318,046.

At the close of 1849, in these two Colonies there were 95 boiling-down establishments, and the sheep slaughtered in that year 743,513, and horned cattle 45,050, producing 160,699 cwt. of tallow. At the same period there were mills for grinding and dressing grain, worked by steam 70, by water 41, by wind 28, and by horse-power 29. The manufactories were—breweries 31; soap and candles 19; tobacco and snuff 15; woollen cloths 6; hats 5; rope 4; tanneries 72; salting and preserving meat 7; potteries 4; gas-works 1; iron and brass foundries 16, and distilleries 2.

The value of commercial articles, imported into the Sydney District during the year 1849, was 1,313,589*l.*, of which 840,743*l.* were received from Great Britain; 8,982*l.* from New Zealand; 139,988*l.* elsewhere; 2,642*l.* from the South Sea Islands; 73,715*l.* from Fisheries; 2,065*l.* from the United States, and 114,739*l.* from Foreign States.

The exports in the same year amounted to 1,135,944*l.*, and among the principal articles were wool, say 13,396,523 lbs., valued at 663,965*l.*, and all shipped to Great Britain; tallow 4,222 tons, 14 cwt., valued at 149,671*l.*; cedar 1,269,321 feet, valued at 9,023*l.*; soap 240 tons, and refined sugar 116 tons, besides various minor articles. The total value of those being the produce or manufacture of New South Wales, and including the fisheries, was 964,018*l.*; of the United Kingdom 95,789*l.*; of other British Dominions 17,926*l.*, and of Foreign States 58,211*l.* In the exports there was a small decline, those of 1848 having been 1,155,009*l.*

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* On Saturday, January 18, says the 'Maitland Mercury,' we saw, in Mr Nicholson's shop, the carcass of the heaviest fat sheep we have yet seen in the Colony, the weight being no less than 121 lbs. This sheep was a two-year-old Leicester wether, bred and fattened by W. F. Gordon, Esq., of Tangorin, being one of a lot of very fat sheep recently bought from that gentleman. Another sheep in the lot promised to be of the same weight.

The imports into Port Phillip, considered separately, during the year 1849, amounted to 479,831*l.*, and those of the previous year to 373,676*l.* The exports reached as high as 755,326*l.*, while those of the previous year did not exceed 675,359*l.* The principal articles thence exported in 1849 were wool 14,567,005 lbs., valued at 574,594*l*; tallow 69,649 cwt., valued at 100,261*l.*; beef 1,205 tons, 6 cwt., valued at 17,992*l.*; sheep 55,670, valued at 16,770*l.*; horned cattle 5,168, valued at 13,676*l.*, and butter and cheese 529 cwt., valued at 1,506*l.*

More recent accounts enable me to add that the total value of the exports from Port Phillip, for the year ending June 30th, 1850, was 978,741*l.* The proportion shipped to Europe was 876,907*l.*, and coastwise and to Van Diemen's Land 101,834*l.* Wool appears on the list to the extent of 770,938*l.*, tallow 97,847*l.*, and leather 4,565*l.* Out of the 39 vessels, in which articles were shipped to Europe, 21 sailed from Melbourne, 14 from Geelong, and 4 from Portland. Among them the largest was the Diadem, of 714 tons, and the smallest the Cockermouth Castle, of 214. The number of horned cattle, slaughtered in Melbourne for butcher's meat, from the 1st of January, 1850, to the 18th of December, in the same year, was 11,995, and 7,882 for boiling-down and salting purposes —gross total 19,878, a considerable increase on the consumption of the previous year.

In 1844, the vessels, engaged in fisheries which visited Port Jackson, were 13 Colonial, 3 British, and 12 Foreign; and in 1849, 17 Colonial, 1 British, and 24 Foreign Whalers are exempted from port charges, in virtue of regulations, dated February 25th, 1845.

In 1840, the quantity of wool, exported from the two Colonies, was 8,610,755 lbs., valued at 566,112*l.*; whereas in 1849 the quantity was 27,963,530 lbs., and value 1,238,559*l.* In 1843, the quantity of tallow exported was 5,680 cwt., and value 9,639*l.*; whereas in 1849, 154,103 cwt. were shipped, valued at 249,932*l.*

In 1844, the boiling-down establishments were 47, and the sheep slaughtered in that year 217,797, and horned cattle 20,148, producing 48,758 cwt. of tallow. In 1849, the boiling-down establishments were 96, the sheep slaughtered in that year 743,513, and horned cattle 45,050, yielding 160,099 cwt. of tallow. From 1844 to 1849, both inclusive, the number of sheep, slaughtered in New South Wales and Port Phillip, was 1,565,752, and horned cattle 184,064, producing 440,186 cwt. of tallow.

As regards bark the change is reversed. In 1843, 1,199 tons were exported, valued at 5,179*l*.; but in 1849 the shipments only reached 28 tons, valued at 90*l*. In 1840, the value of the timber exported was 20,971*l*., but in 1849 only 13,097*l*. In 1840, the value of fish-oil, whalebone, and seal-skins, shipped, was 224,144*l*.; but in 1849 it fell to 45,468*l*. In 1840, the number of vessels, entered inwards, was from Great Britain 190; from New Zealand 68; elsewhere 347; South Sea Islands 6; Fisheries 27; United States 8, and Foreign States 63; making the total number 709, and containing 178,958 tons. In 1849, the vessels entered inwards were 898, containing 218,967 tons, and outwards 907, measuring 214,056 tons. In 1840, the number of vessels built in the two Colonies was 18, and registered 98; but, in 1849, the number built was 38, and registered 126.

The exports from Sydney to California, in the year commencing April 5th, 1849, and ending April 5th, 1850, amounted to 57,840*l*., of which 22,741*l*. were British merchandize, 31,339*l*. Colonial, and 3,760*l*. Foreign.

In 1849, the total revenue and receipts were, for the Sydney, or Middle District, 368,659*l*., and for Port Phillip, or Southern District, 207,032*l*.—total 575,692*l*.; while the expenditure was, for the Sydney District, 361,583*l*., and Port Phillip 154,949*l*.—total 516,533*l*.

The number of public schools in the Colony, including Port Phillip, returned for 1849 was 222, of which 3 were for orphans, 205 denominational, and 14 national, with 15,426 scholars of both sexes, at an annual expense to the government of 16,033*l*. There are besides 336 private schools, having 10,256 scholars. There is a lunatic asylum at Turban Creek, Sydney; another for convicts at Paramatta, and one also at Port Phillip.

At Sydney there is a Fire Insurance Company and 4 banks, viz., Bank of New South Wales, Commercial Bank, that of Australasia and the Bank of Australia, besides a Savings' Bank. Postage stamps have been introduced into New South Wales, the design of which is the great seal of the Colony. Thirteen newspapers are there printed, viz., 10 at Sydney; 1 at Maitland; 1 at Moreton Bay, and 1 at Goulburn.

The 3rd of July, 1850, was a great and glorious day for the inhabitants of New South Wales, the turning of the first turf of the first Australian Railway having then been accomplished at Sydney, amidst the plaudits of a large concourse of persons, and in the presence of the Governor and family, the ceremony being performed by his daughter. Commencing at the metropolis, the first portion of this railway is laid out to serve as a common entrance to Sydney from every part of the interior, and is designated the Main Trunk-Line, the branches to Parramatta and Liverpool bearing these names respectively.

The main line commences at the Haymarket of Sydney, and passing through the city is carried by Chippendale, Newtown, Ashfield and Homebush, along the left or southern side of the Parramatta road, to Haslem's Creek, nearly 10½ miles from the commencement. The Parramatta branch is to be continued from the termination of the main line at Haslem's Creek, to the junction of the Dog Trap with the Sydney and Parramatta road, and thence under the Western road to the intended station at Pitt row, about 200 yards south of the entrance of the Government House at Parramatta, a distance of about 4½ miles from the trunk-line and 15 from Sydney. The Liverpool line is to be carried forward, from Haslem's Creek across the Dog Trap road and over Prospect Creek, a river over which the Lansdowne bridge is built, and enters Liverpool on the east side, a distance of 9 miles from the main-trunk and 19 from Sydney.

As the principal land traffic from the interior to Sydney is from the Southern and Western Districts, of which the respective capitals are Goulburn and Bathurst, the early attention of the promoters of this railway was naturally directed, in the first instance, to reaching these two towns. The main-trunk-line is accordingly laid out to suit the direction of both, and continued in this course as far as could be done without increasing the distance to either the one or the other. The position of Liverpool, situated at the head of George's River, which descends into Botany Bay, added to the facility of thence falling into the best onward direction, marks that town as an eligible point in the most direct and advantageous route from Sydney to Goulburn, while no railway to Bathurst, or to the Hawkesbury District, could avoid passing through Parramatta, the second town in the Colony, lying, as it does, in a direct line to the Western country.

Such is an outline of the first part of the scheme, and as far as projected, for the present, funds have been raised to carry it out, and on this primitive scale it is expected that the sources of traffic will repay the shareholders. The line clears the suburbs of Chippendale and passes to Newtown, a considerable and thriving township, whence it proceeds to Ashfield and Homebush, from which places the passenger traffic is occasionally great. But this intermediate traffic will be small in amount, compared with that received from and carried on to Liverpool and Parramatta. It was estimated by the Railway Sub-Committee, in 1846, that the traffic, from Liverpool to Sydney alone, was at that time equal to 29,000 passengers per annum, 12,145 tons of goods, 37,000 bushels of grain, and 127,000 head of cattle and sheep, the ordinary charge upon which could not be less than 14,000*l*.

From the extent and position of Parramatta, on the Western road, as well as its being a favourite place of resort to the Sydney inhabitants, the passenger traffic in that direction is expected to be considerable. Wool is now brought to market on drays, and the expense of maintaining draught cattle and drivers at the inns in town found to be heavy. This traffic will eventually fall to the share of the Company, and must extend as the lines are carried forward. On this basis the great scheme of accelerated communication with the interior of New South Wales has commenced, and on the spot it is fondly anticipated will continue until Melbourne and Sydney are brought within a day's journey of each other. If such should be the case, an immense change in the cost of territorial and agricultural productions must follow.

As before noticed, Port Phillip is now erected into a separate Colony, comprising the southern coast of New South Wales, and from its geographical position enjoys several striking advantages. It is equi-distant from Sydney and South Australia, and nearer to Van Diemen's Land than either. It is also placed in the direct line of route from Europe and the Cape of Good Hope. The activity in trade, accompanied by an increased value of property, has there been most remarkable. The growth of this section may in great measure be attributed to the advantages with which nature has endowed it, and the enterprising spirit of its earliest inhabitants. Among the first were its pastoral resources; and these, from the returns already presented, it will have been seen, were not neglected. In their social relations the inhabitants equally improve. Schools are now very generally established, and churches of every denomination opened.

In other respects this new Colony seems to be singularly fortunate. Its ordinary revenue, for the second quarter of 1850, amounted to 25,302*l*., being an increase of upwards of 4,000*l*. principally in the customs. The land revenue was 53,602*l*., including Mr. Clarke's remarkable purchase, who had paid into the Colonial Treasury 28,000*l*., and, in virtue of existing Acts, selected 28,000 acres near Melbourne, his place of residence, comprising the best portions of several pastoral runs under lease to graziers, and a purchase, commanding, according to the Regulations of 20th March, 1848, the enormous additional quantity of 84,000 acres, if so much be available, by virtue of the pre-emptive privilege attaching to the contract. The runs in question, being within the Settled Districts, are let from year to year, and, in consequence of this sweeping bargain, the occupants by law are obliged to quit, at a month's notice, not only the lands acquired as freehold, but also those sections which fall under the operation of the pre-emptive right, without being entitled to any indemnification for improvements.

In some respects this is a great hardship, but such an investment as the above bespeaks unexampled confidence in the future prospects of the new Colony, while the outlay of such an amount of capital denotes what can be done in Australia by industry, intelligence and perseverance. The singular case in question had excited an intense feeling of interest in the Colony, and it will at the same time have been seen that it applies a new test to some of the Land Laws and Regulations, scarcely anticipated. In justice to Mr. Clarke it should, however, be mentioned that, in the existing dilemma, he liberally offered to confirm the Crown tenants in their present tenures, and also to extend their leases for a rent equal to 12½ per cent. of the price paid by him, that is to say at 7½d. per acre, or 10*l.* per section. With this unexpected windfall the gross amount of both revenues was 78,905*l.*, an increase on the corresponding quarter of 1849 equal to 24,463*l.*

At the Annual Horticultural Show, held at Melbourne towards the close of October 1850, the floricultural exhibition was most interesting. A gold medal was then awarded for 3 bottles of Burgundy, and the silver medal for 3 bottles of Frontignac Rouge, 1 bottle of brandy and 4 bottles of Champagne. Some good samples of white wine were at the same time competed for, and also several of what is called rhubarb wine. For three bottles of *Vin de l'Etoile*, grown in Geelong and the produce of the black-cluster vine, was awarded the gold medal; for 3 bottles of Australian wine, made from the *Pineau gris* grape, the large silver medal; for 3 bottles of Muscadine, made from the *Muscat blanc*, the large silver medal; 3 bottles of *Pineau*, made from the *Pineau gris et noir*, the small silver medal, and for 3 bottles of Victoria wine the large silver medal. Corresponding certificates were exhibited to show that all these wines were pure and without any adulteration, and being made from the fruit of young vines, and quite new, the oldest samples produced bore no mark beyond that of 1848. Since a consignment of 255 dozens has been received in London, described as "Australian White Wine and Australian Red Hermitage," on the merits of which a correct judgment will hereafter be formed.

When the recent origin—the late laying-out and foundation of Melbourne, the capital, are for a moment thought of, the visitor is astonished at beholding rows of substantial and brick-built houses, generally two stories high, forming wide and regular streets, running at right angles with each other, and a very beautiful bridge spanning the Yarra Yarra. If he looks closer, he sees handsome and well-assorted shops, in addition to private dwellings, denoting the wealth and comforts of the occupiers. Further on he stops to contemplate two handsome churches, besides ample accommodation for the Scotch, Wesleyan, and Catholic forms of worship. In the way of business and recreation, he finds banking-houses, reading-rooms and hotels, besides various institutions marking the progress of social and intellectual intercourse. Towards the close of last year, rejoicing took place at the opening of a new bridge at Geelong called the Prince's Bridge, a noble span over the Yarra. Arrangements have also been made for establishing a gas company at Melbourne, where there are at the present time 9 places of worship in the course of erection, with 4,630 sittings.

Every year's experience convinces us that our Australian Colonies are rapidly growing in population and rising in commercial importance; and, if they cannot be brought nearer to us, it must be a subject of congratulation to them, as well as to ourselves, that our mutual communications will now be accelerated. The Parliamentary Committee on Steam Communication with India, China, and Australia, have decided in favour of the route *viâ* the Cape of Good Hope, as being, for the present, the most eligible for postal communications with our Southern Colonies.

This, therefore, there is every reason to believe, will be the line adopted, and in coming to this decision the Committee steadfastly kept in view four essential points, viz., speed, combined with the certainty of communications out and home; accommodation and moderate rates of fares; capabilities and cheapness in the transmission of merchandize, and security, as far as possible, consequent upon lines through foreign countries. Against the Indian route the inconvenience of three transshipments, the casualties and tediousness of the overland journey to Suez, accompanied by additional charges to passengers, and the impossibility of using this line for the conveyance of merchandize, were considered as insuperable objections.

The present average time for conveying letters to and from Australia, by sailing vessels, is 275 days, which by the Cape route will be reduced to 135, while by that of Panama it could not be brought lower than 133, or the one by Singapore to less than 109. Under all circumstances it is expected that this determination will prove satisfactory to the Australians, the line chosen being less liable to contingencies, while it at once establishes a fixed and periodical intercourse, which in time may be improved, with this view every facility being left open. If hereafter it should be ruled that Sydney is the representative of Australia, the Panama route may be preferred, as susceptible of being somewhat shortened and taking New Zealand on the way ; but, before this new state of things can arrive, the local Legislatures must make some sacrifices, and the means of transit and intercourse on the Pacific side must besides be better secured and more extended.

SOUTH AUSTRALIA.

No one of the sections in Australia has advanced so rapidly as the one under consideration. Its situation, settlement and early history were sketched in my first publication : the only task which thus remains for me to perform is to trace its progress since 1846.*

As a separate and organized Colony South Australia cannot boast a longer date than thirteen or fourteen years, and in that time it has been explored, to a certain extent populated, and many of its unknown resources unfolded. Its pastoral, agricultural and mining capabilities have especially been brought into notice.

In the middle of last August the 13th anniversary of the foundation of South Australia, as a separate Colony, was celebrated in an imposing manner. From the facts established on this occasion, it appeared that only 13 years before the constituted authorities, on the plain of Glenelg, read to about 200 persons assembled round a gum-tree (still standing) and at that time nearly the entire population, His Majesty's proclamation, establishing South Australia as the only free British Province of New Holland. At that time the live stock consisted of 2 horses, 2 mules, and 1 cow!

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* The subjoined is copied from a late number of the 'Adelaide Times :'—" The colony was proclaimed by Governor Hindmarsh in December 1836. A few tents at Holdfast Bay were then sufficient for the accommodation of the whole of the colonists. Now we have been hurried forward to January 1851, and have a large and flourishing city, and towns and villages of various sizes springing up in different parts of the colony. Our population numbers little, if anything, short of 70,000. Large sums have been invested in the multifarious branches of Colonial enterprise, and commerce is rapidly extending among us. Providence, moreover, has been singularly propitious, in directing us from the surface to the bowels of the earth, and in aiding us to dig up and bring forth its hid treasures. But for its copper-mines, of unequalled production in any other part of the world, South Australia would not, in all probability, have been what it is now, ten years hence, that is in January 1861. This is matter for gratulation, but we are now about to enter upon a new era. Hitherto we have been governed by a band of persons imposed upon us, without any recognition of the representative principle, or any acknowledged right of control on the part of the people ; but this system is now virtually defunct, and in a few days, or weeks at farthest, its funeral knell will be tolled in the proclamation of the New Act. The New Act, certainly, is far from what we could have desired, but it may still be made a stepping-stone to the possession of our full rights, if properly worked. As compared with former systems, our political advancement under the New Act, during 1851, if skilfully and rightfully managed, will be as great as is our social and commercial advancement, as compared with the first encampment of settlers in 1836 at Holdfast Bay.

As population is the basis of all territorial improvements, I shall begin by stating that since 1845 the increase has been astonishing, the favourable prospects of the new Colony having attracted a comparatively large immigration from Great Britain and Germany, as well as from the neighbouring countries. At the close of 1850, a new census was taken, from which it appeared that the number of houses in the Colony was 11,981, and the population, of European origin, 62,639, say 34,975 males and 27,664 females. To these may be added 360 for missions and persons travelling, about the same number for seafaring persons, and 4,000 aborigines, with their children, which would make the total population of South Australia, in January, 1851, very near 68,000 souls. In their report, submitted on the 24th of last June to the shareholders in London, the Directors of the South Australian Banking Company affirmed that the total population of the Colony now exceeds 70,000, and that the present immigration there is between 6,000 and 7,000 yearly.

In 1849 the immigrants amounted to 13,824, of whom 6,769 paid their passage out and 7,055 arrived at the public expense. There are now above 7,000 Germans settled in South Australia,* who having been naturalized are treated as British subjects. Their settlements are reported to be in a prosperous state, a degree of comfort and contentment prevailing among them. A newspaper in their own language has been commenced, and the funds provided for a hospital, exclusively for their use.

Until 1840 the agricultural capabilities of this section were not appreciated; indeed, as regards cereal crops scarcely had any experiments then been made; whereas in 1849 the fenced lands had increased to 138,710 acres, and in the same year 11,401 quarters of wheat were exported, valued at 17,329*l.*, besides 1,184 tons of flour, valued at 13,216*l.*

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* The number of foreigners, now residing in South Australia, is 7,293, viz., 5,591, German immigrants; 954 do. born in the Colony; 52 do. travelling there; 7 Dutchmen; 48 French; 42 Chinese; 69 Americans; 3 Danes; 19 Swedes; 1 Ionian; 9 Italians; 22 Hindoos; 11 Portuguese; 8 Russians; 21 West Indians; 4 Spaniards; 10 Africans; 10 Malays; 4 Belgians; 1 Maltese; 1 Greek; 1 Norwegian; 1 Mexican, and 1 Arabian.

The stock pastured on Crown lands under licence, in 1849, was 1,781 horses, 51,540 horned cattle and 885,918 sheep, while on the Crown common lands there were besides about 202,482 sheep. The pasturing licences given out were then 267, extending over 12,522 square miles, while those to cut timber on Crown lands amounted to 238.

In 1848 the public revenue was 76,241*l.* and, in 1849, 108,301*l.*, while in the first-named year the expenditure was 69,958*l.* and in the second 82,637*l.* In 1845, the land sales were 49,855 acres, which realized 52,902*l.* and, in 1839, 56,607 acres, realizing 58,019*l.*

In 1843 the imports at Port Adelaide were 109,013*l.*, and exports 80,853; but in 1847 the first had risen to 410,825*l.*, and the second to 250,348*l.* In the year ended 5th April, 1850, the imports, as compared with those of the preceding year, increased 34¼ per cent., that is, from 471,539*l.* to 632,689, while the exports for the same period decreased from 485,951*l.* to 483,475*l.* The export of wool for the year ended April 5th, 1850, was 2,841,131 lbs., and the previous season 2,243,086 lbs. These returns perhaps present the most extraordinary rise in trade ever witnessed in any European Colony. As a further proof of increased commercial intercourse, it may be added that, in 1841, the shipping inwards at Port Adelaide was 70 vessels, whereas, in 1849, it rose to 277, say from Great Britain, 95; Colonies 163, and Foreign States, including Batavia, Singapore and Hong Kong, 17. According to recent advices from Adelaide, wheat was selling there from 2*s.* 9*d.* to 3*s.* 3*d.* per bushel, and freight home for wool was 1*d.* per lb.; oil 3*l.* per ton, and copper ore to Swansea 3*l.* For the year ending 5th April, 1850, the tonnage inwards and outwards had increased 43 per cent., viz., from 112,338 to 160,497 tons.

The principal articles of export in 1849 were, copper ore, 272,607*l.*; wool, 10,504 bales, as already stated; smelted copper, 3,785 cwt., valued at 14,862*l.*; lead ore, 413 tons, valued at 5,510*l.*; tallow, 5,872 cwt., valued at 9,076*l.*; beer, 11,200 gallons, valued at 1,100*l.*; besides miscellaneous articles, such as bread, cheese, salted provisions, gum, hides, horns, leather, black lead, emery, whalebone, &c.

As an additional proof of the prevailing activity in commerce, I am induced to add the Collector-General's Report of Exports, corresponding to the first quarter of 1850, compared with those for the same period of 1849, together with a return of the shipping inwards and outwards, passengers, &c.:—

	1849.			1850.		
	1st Quarter.			1st. Quarter.		
	£	s.	d.	£	s.	d.
Grain, Flour, &c.	11,123	15	0	20,737	10	0
Horses	100	0	0	850	0	0
Copper	700	0	0	30,617	0	0
Tallow	5,315	0	0	4,416	0	0
Ores	57,861	0	0	92,215	0	0
Wool 2,045,537 lbs.	77,578	5	0	82,916	12	6
Other Articles	681	0	0	1,118	0	0
	153,357	0	0	232,870	2	6

Shipping, 1849, 1st Quarter.

Inwards	64 Ships,	4,288 Passengers,	19,632 Tons.
Outwards	64 „	537 „	18,508 „

1850.—1st Quarter.

Inwards	66 Ships,	8,127 Passengers,	19,636 Tons.
Outwards	75 „	1,753* „	25,083 „

In the year ending June, 1850, 24 vessels sailed for Great Britain, their total tonnage amounting to 10,267, and their cargoes consisting of 13,052 bales of wool; 19,867 bags of wheat; 910 bags and 10 barrels of flour; 5,950 tons of copper ore and 277 tons 5 cwt. of smelted copper; 79 tons of lead ore; 613 casks of tallow; 123 hides; 170 packages of gum; 2,040 tree-nails; 6,200 horns; 74 packages of whalebone; 1 package of isinglass; 121 packages of bark; 22 bales of sheepskins; 1,200 feet of stringy bark timber, besides other miscellaneous articles of minor value.

Mining, a new element of wealth, has been here carried on with great spirit. The companies, for this purpose established at Adelaide, already amount to 40, some of which are private ones and their earliest date of registration in 1845. Promising smelting works are also established.

In their social organization the progress made by the South Australians is equally striking. In Adelaide there are no less than 10 Building and Land Investment Societies; an Exchange; a Library and Mechanics Institute; a Colonial Labour Office, under the superintendence of the Bishop; an Agricultural and Horticultural Society; an Agricultural Association; a St Andrew's and a St Patrick's Society, besides Temperance and Bible Societies, Masonic Lodges, &c. There is a Lunatic

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* The large emigration from the Colony is chiefly owing to the numbers who are leaving for California. The actual nett increase of population, by immigration, in the first quarter of 1849 was 3,771 souls and, in 1850, 1,374.

Asylum, and a Metropolitan and Mounted Police. Five newspapers are published there, viz., the South Australian every Tuesday and Friday; the South Australian Register daily; the Government Gazette every Thursday; the South Australian Gazette and Mining Journal every Thursday and Saturday, and the Adelaide Observer every Saturday.

In the capital and principal towns several useful articles are now produced, such as barilla, tallow, ale and porter, candles, coaches, flour, engines and machinery, malt, pottery, salt, ships and boats, prepared tobacco, soap, starch, glue, leather, &c., serving to meet the local consumption and prepare elements for an export trade. A large proportion of the cultivated land is inclosed, at the same time that saw-mills have been erected even in the mountain forests. Copper and lead mines are extensively worked in the Mount Lofty ranges, to the East of Adelaide, and also on the coast, from 12 to 20 miles to the South, in addition to which smelting works are established at Yatala, near Port Adelaide.

Of all the mines worked, those of the Burra Burra seem the most remarkable. At them there are upwards of 700 men employed, and so great has been the attraction that the neighbouring township of Kooringa, which has sprung up in four years, already contains more than 4,000 inhabitants, comprising a due proportion of members of the learned professions, chapels, schools, inns and shops, with all the trades and occupations suited to so privileged a locality. The operation of smelting is also there performed on the spot.

The commercial institutions indicate both activity and success. The South Australian Company may in fact be considered as the founders of this Colony. There is also the South Australian Banking Company, incorporated in 1847, with branches of the Bank of Australasia and the Union Bank of Australia; besides branches connected, in New South Wales, with Sydney, Bathurst, Melbourne, Geelong and Portland; in Van Diemen's Land, with Hobart Town and Launceston, and in New Zealand, with Wellington and Auckland. In 1848, a Savings Bank was established at Adelaide, where there are also 4 Insurance Companies, a Railway and a Gas Company.

The Legislative Council lately voted 4,000*l.* to promote the navigation of the River Murray by steamers. This sum is to be equally divided between the two first iron steamers, of not less than 40-horse power and not exceeding 2 feet draught of water, when loaded, as shall successfully navigate the Murray from Goolwa to the junction of the Darling, computed to be about 551 miles. Should this scheme succeed, wool, tallow and hides most probably will, in the first instance, form the chief articles of transport.

In the diocese there are 17 places of worship, belonging to the Church of England, with a corresponding number of clergymen.

When this Colony was founded, nautical men pronounced the harbour of Port Adelaide accessible only for vessels from 400 to 500 tons, whereas it is now seen that ships of 800, or 1,000 tons, can readily discharge and load within its expansive and tranquil waters. The increased depth and capaciousness are advantages gained by means of a powerful and expensive system of steam-dredging, and eventually no doubt the capital of the province and its port will be united by a railway. Almost every part of Adelaide city evinces the utmost activity in the erection of new buildings, most of which are in a style of architecture and marked by massive dimensions, tending to ornament and give regularity to the fronts of the streets. Among the most prominent is the new Bank of Australia, besides which there are several places of worship and a theatre.

The inspection of the sea-board of South Australia has been completed, as a basis for further improvements on the coast, and extending to Gulf Spencer and St Vincent, to Port Lincoln and to Rapid, Encounter, Guichen and Rivoli Bays. A marine survey of Kangaroo Island has also been made, the soundings round ascertained, and proper precautions are taking for the safety of vessels, arriving upon the coast, by the publication of charts, the construction of lighthouses and other preservative measures so as to prevent accidents. Whalers resort to Encounter Bay, and it seems to be now admitted that Port Elliot is the preferable place for them to anchor at; indeed the latter and Port Lincoln are pronounced the safest anchorages on the S. line of the province.

In consequence of these results obtained, it has been determined to construct a railway from the Goolwa, or Lower Murray, to Port Elliot, about 7 miles in length, by which means the produce sent down the river Murray and its tributaries, instead of being sent, as it now is, to Sydney, Port Phillip and Portland Bay, on drays, drawn by bullocks, over a tedious overland route, with this facility will reach Port Elliot almost direct, and be there shipped. In the districts, bordering upon the Murray, there are already 300,000 sheep,* annually producing

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* The following is extracted from a recent number of the Adelaide Times:—MERINO SHEEP.—Mr Kirschner, the German consul for New South Wales, has arrived at this port by the Australia, from Hamburgh, *en route* for Sydney. The principal cause of his journey to Europe was to procure specimens of the pure Saxon breed of merinos, on which mission we are happy to say he has been completely successful; having on board the Australia eighty-five Saxon merino sheep of the purest

750,000 lbs. of wool, besides other produce. These contributions of industry, together with the ores of the Reedy Creek mine, heretofore sent overland to Adelaide, will be boated down the Murray and reach Port Elliot at a greatly diminished charge of conveyance. The estimates of the River Murray and Encounter Bay Railway works do not exceed 21,109*l.*

WESTERN AUSTRALIA.

THE progress of this section has not been so rapid, or its career so remarkable, as in the others of the same sisterhood, although its geographical position, combined with local circumstances, render it an extremely interesting settlement. Its inhabitants are, nevertheless, now bestirring themselves, and if there is one portion of their territory to which their attention is eagerly and hopefully directed, more than another, it is that extent of country lying between the Moore and Murchison rivers, blessed with a temperate and healthy climate, containing superior ranges for sheep and cattle, and comprising, within its limits, widely-spread flats, suited for cereal crops. A portion of this region also boasts of minerals.

At length we have here evident indications of advancement, and from the Statistical Tables, made up to the 31st of December 1849, it results that the population of this Colony was then 4,654 persons, of whom 2,471 were located in Perthshire, and the rest distributed in the other six counties.

The quantity of land under cultivation was 6,904 acres, showing an increase over the previous year of 139 acres. Sown with wheat were 3,455 acres, and planted with vines and olives 150.

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breed, the passage of which cost him 5*l.* a head. Fifteen ewes and one ram are destined for Mr W. Walker, a large stockholder of New South Wales; the ram is a beautiful animal, and cost in Germany 65*l.* Mr Kirschner has, we understand, been offered 25*l.* a head for twelve, but has refused it, under the impression that they will fetch a much higher figure in the Sydney market. The above information we derive from our contemporary the 'Sued Australische Zeitung,' but not having seen the sheep ourselves, we are not of course in a position to give an opinion upon them. If they are, however, as good as represented, we think stockholders would do well to seize so favourable an opportunity of improving the breed of sheep in our colony.

The live stock comprised horses 2,359, increase 254 ; cattle 11,938, increase 917; sheep 144,000, increase 2,921, and swine 3,185, increase 798.*

The vessels entered inwards were, from Great Britain 3 ; Colonies 30 ; United States 8, and Foreign 1. The imports in 1848 amounted to 45,411*l.*, but in 1849 they fell to 28,534*l.*, showing a decrease of 16,877*l.* In 1848 the exports were 29,598*l.*, and the following year 26,156*l.*, exhibiting a decrease of 3,441*l.* Among the articles exported were, sandal-wood 1,203 tons, valued at 10,710*l.*; sheeps' wool 273,073 lbs., worth 8,601*l.*, and horses, cattle, sheep, and goats, valued at 3,320*l.* The minor articles were, whale-oil, gum, kangaroo skins and whalebone.

There are 3 stations for whaling, one at Freemantle, one at Geography Bay, and another at Albany. The take of last season was 90 tons of oil, with a corresponding quantity of bone, valued at 1,740*l.* In Perthshire there are 2 water-mills, 2 wind-mills, 1 steam-mill, 2 stone-quarries, and 2 lime-kilns. A few establishments of a similar kind are seen in the other counties. Two newspapers are published at Perth, viz., the Inquirer and Perth Gazette.

At the commencement of February 1850, the estimates were laid before the Legislative Council, containing the Receipts and Expenditure for the past year, with the estimated Revenue and Expenditure for 1851. From the first it appears that in 1848 the Revenue amounted to 10,392*l.*, and in 1849 to 9,596*l.*, showing a deficit of 685*l.*, solely attributed to a diminution in the sandal-wood trade. In the land sales there was an increase, arising out of the sale of the Geraldine mines ; but in the pasturing licences a significant decrease is noticed of 236*l.*

Recent advices from this Colony report the discovery of an extensive vein of silver-lead ore, on a spot situated about 80 miles from Port Champion, enjoying the facilities of water conveyance, and in the midst of a favourable district, and well adapted to all the purposes of settlement. This is in addition to the lead lodes already worked there, and besides strong indications of copper had been obtained. The matrix of the silver-lead ores is a soft rock, resembling slate, and capable of being broken up with the slightest force. It has also been ascertained that in the vicinity fine clay abounds, suitable for making bricks to construct smelting works and other buildings; at hand there is a forest of good timber, similar to York gum, well known for giving out a strong heat when burning, so that should coal not be discovered on the Hutt River, where the shales appear, there will still be no want of fuel for furnace purposes.

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* A notification was lately issued, making known that the local government will pay a bonus of 60*l.* to the first importer of one male and two female camels, and 50*l.* to the first importer of two male and eight female alpacas, in healthy condition.

Among the exports is a new article, called *bêche de mer*, and it was expected that the mother-of-pearl, found on the coast, would be turned to some account. Guano had also been discovered, and a large sample shipped to the Mauritius, where, if it should prove saleable, any quantity can be supplied. Arrangements were also making to send a cargo to the Isle of France.

There seems to be an impression that the region round Shark's Bay abounds with localities containing guano; but, owing to the want of shears, at a short distance from the shore, attended with other inconveniences, the embarkation of any quantity is difficult and tardy. Arrangements had, however, been made for the shipment of some trial cargoes to Europe, and on the spot great displeasure was felt towards the governor, for imposing a duty of 2*l.* per ton for licence to ship an article now so generally used in the agriculture of the British Isles, and for which we have hitherto been almost dependent upon Peru. Redress has since been obtained through demonstrations made in Parliament. In every Division of our Southern Colonies, and even now in Western Australia, strenuous efforts are making to turn the local resources to account, more especially by the shipment of new articles of commerce, as well as by the opening of fresh roads and the improvement of the old ones, by which means lands, hitherto considered of little or no value, will be rendered available, and such efforts deserve every encouragement both on the part of the Government and the public.

It appears evident that the Western Australians are determined to keep up a close, and as they expect, a profitable connexion with India, and accordingly a Company is formed, more immediately in conjunction with Madras, for the rearing and exporting of horses, suitable for cavalry purposes, and for such an undertaking it appears that the Colony possesses all the essential requisites. An improvement in the breed is strongly recommended, and to begin by the importation of 6 thoroughbred sires from England. Races are now kept up at Perth. A Timber Company, with every prospect of success, has been established at Vasse, and the logs now brought down by water are of larger dimensions than formerly.

From late communications it appears that the hitherto free section of Western Australia is to become a penal settlement, even at the solicitation of some of the most influential inhabitants themselves. What the other sister Colonies rejected as a bane they now willingly accept as a boon. From the very foundation of this Colony the want of labour has been severely felt, in consequence of which both agricultural and pastoral pursuits lingered. Most of the early settlers, industrious and persevering as they were, have in consequence been ruined, and the small capitals which they took out with them sacrificed.

The corresponding determination, on the part of the Colonial Office at home, is thus rendered a subject of very general congratulation, as the Colonists expect it will bring with it population and also an increased expenditure among them. It was anticipated that the coming pensioners would do much towards supplying the want of labour, which besides would be augmented by emigration; arising out of the fund voted by Parliament for sending free emigrants to those Colonies which receive convicts, and as it appears that the latter are rejected elsewhere, the Western Australians hope that the greater part of the 30,000*l.* would fall to their share.

On the first of last June the first convict ship arrived out, as a singular coincidence the very day the Colony attained its majority, that being the 21st anniversary of its foundation. A letter, signed by a respectable body of the inhabitants, contains the following passage in allusion to this event. "We hail its arrival as the first ray of hope for the ultimate prosperity of the Colony which has ever shone on us, and should the project be carried out to its full extent, it will no doubt place us in a few years in as prosperous a condition as any other of the Australian Colonies." Addresses were also forwarded to the Home Government, testifying the general approbation of the settlers.

On the banks of the Deep River, otherwise the Frankland, which falls into King George's Sound, extensive forests of timber, called the *tuart*, have been explored and found to contain an immense quantity, and admirably well adapted for ship-building. Some of these trees are represented as being of a most gigantic description, 150 feet high and as straight as the barrel of a gun. Three men, hand in hand, could not span one of the average size. From one of them a keel could be cut for the largest vessel, without the necessity of joining. A practical person, on the spot, has built two large boats from less than one half of one of these enormous *tuarts*. It is very confidently expected that Western Australia will soon be in a condition to supply the Government Dockyards at home, and, as one of the local papers remarks, "if the hint contained at the close of one of Earl Grey's despatches is to be relied upon, which infers that the cutting of timber will be among the occupations of the convicts, there is every reason to imagine that the region where the timber grows, will be one of the fields wherein they will exercise their labours." It is promised that when the timber is felled, it shall be conveyed to King George's Sound in flat-bottomed vessels, of 150 to 200 tons, constructed on the spot, in which it would be carried over the bar at the mouth of the river, which has only about 3 feet of water, although the river itself has not less than 12.

The pearl fisheries were also proceeding favourably, so that with the aid of their agricultural and pastoral advantages, stimulated by the development of new resources, it is to be hoped that in a few years, Western Australia will occupy that rank in our Southern Colonies, for which she is fitted by nature.

VAN DIEMEN'S LAND.

Within the last three years there is a marked improvement in the general organization of this Colony, and more particularly in its social and commercial relations. It was lately surveyed, apportioned and divided into counties, hundreds and parishes. The counties are, Northern—Devon, Dorset, and Cornwall; Midland—Westmoreland, Somerset, Glamorgan, and Cumberland; and Southern—Kent, Buckingham, Pembroke, and Monmouth.

From Parliamentary papers it appears that, between 1842 and 1847, no census was taken. The one reaching up to the 31st of December 1847, showed that the total population was then 47,328 males and females 22,336—total, 70,164, being an increase, since 1842, of 14,107 persons. Since then the population has been greatly augmented. On the 1st of December 1848, the convicts were 24,494 males, and 3,965 females—total 25,459. Of the Church of England there were, on the 1st of January, 1848, 44,490 persons; Church of Scotland, 4,652; Wesleyans, 2,566; other Protestant Dissenters, 2,186; Catholics, 9,904—total Christians, 62,698, besides 452 Jews, and 20 Mahometans and Pagans.

The number of free persons who arrived in the Colony in 1848, was 4,410, while that of the convicts congregated there on the 31st of December, in the same year, was 25,459. The free population of Van Diemen's Land, according to the Census, taken on the 31st of December 1847, was—born in the Colony, 9,138 males, and 9,217 females—

total 18,305, showing an increase, since the Census of 1842, of 5,631. The free emigrants in the interval, were 7,391 males, and 6,427 females —total 13,818. The number of convicts, maintained by Government, on the 30th of June 1849, comprised 3,684 males, and 1,671 females. The pass-holders in private service amounted to 4,002 males, and 1,671 females; the ticket-of-leave holders were 9,415 males, and 1,165 females —grand total of convicts 21,409, being 17,101 males, and 4,308 females. The number of convicts who arrived in the Colony from 1817 to 1848, was 56,819. In 1849, those received were 1,861, and in 1850, according to the latest accounts, 1,537, showing that the total number of prisoners, landed in this single Colony since the Transportation system commenced there, amounted to 60,217.

The immigration, in 1847, was free, including troops, 2,875 and convicts 2,663—total 5,538. On the 31st of December, in the same year, the convicts on the island were—holding tickets-of-leave, males 4,749 and females 965—total 5,714; in Government employment, males 8,660 and females 1,098—total 9,758. Aborigines—males 15 and females 23—total 38. Their decrease, since 1842, had been 13. The military, males, were 1,765 and females attached 481—total 2,246. Increase, since 1842, 815.

The number of houses was, of stone and brick, 4,963 and wood 5,224 —total 10,187. The occupations of the inhabitants are thus classed—landed proprietors, bankers, merchants and professional men 1,502; shopkeepers and other retail dealers 1,172; mechanics and artificers 5,584; shepherds and others in charge of sheep 1,098; gardeners, stockmen and farm labourers 11,693, and domestic servants 4,839.

On the 1st of January, 1849, the number of acres of land, marked off into police stations, was 14,482,802; ditto cultivated 171,540; ditto, granted or sold, uncultivated 2,549,906; ditto granted and sold to settlers 2,721,446, and lands held under pasturing licences 1,363,427, at a rental of 17,511*l.*

At the same date, the number of acres under crop, was, wheat 64,700, producing 1,153,313 bushels; barley 14,042, producing 331,184 bushels; oats 29,463, producing 756,762 bushels; peas 6,741, producing 12,900 bushels; beans 132, producing 1,805 bushels; tares 450, producing 3,185 bushels; English grasses 49,315, producing 43,195 tons of fodder; potatoes 3,916, producing 18,232 bushels, and turnips 8,836, producing 41,241 bushels—total acres 177,603.

The quantity of live stock in the Colony on the 1st of January, 1849, was sheep 1,752,963; horses 17,196; horned cattle 85,485; goats 2,902 and pigs 29,967.

The Customs' Revenue for the year, ending January 5th, 1848, was, for Hobart Town 55,722*l.* and Launceston 28,985*l.* The value of Imports and Exports for 1847, stood thus:—

	Hobart Town.		Launceston.	
	Imports.	Exports.	Imports.	Exports.
Great Britain . .	£400,307	200,234	117,479	138,375
British Colonies .	98,959	102,886	63,417	154,239
United States . .	5,840	"	"	"
Foreign States . .	29,956	4,562	8,635	580
Total	£535,062	307,682	189,531	293,194

In 1848, the total Imports into Van Diemen's Land were, from Great Britain 460,244*l.*; from British Colonies 109,990*l.* and from Foreign Ports 23,928*l.*—total 594,154*l.*

The return of Exports was, to Great Britain 255,027; to British Colonies 232,718*l.* and to Foreign Ports 2,536—total 495,281*l.*

The principal export articles were, wool, valued at 195,143*l.*; wheat 50,863*l.*; flour 32,038*l.*; sperm-oil 41,074; black whale ditto 6,235*l.* copper ore 2,100*l.*; currants and raisins 630*l.*; fruit and preserves 4,917*l.*; barley 4,235*l.*; malt 702; oats 6,084*l.*; hay 3,232; hides, skins and leather 9,629*l.*; horses 7,500*l.*; sheep 1,530*l.*; hops 788*l.*; malt-liquors 4,265*l.*; potatoes 6,124*l.*; rope and twine 1,090*l.*; timber 20,464*l.*; tobacco 4,101*l.*; whalebone and wine 3,744*l.*, besides a number of miscellaneous articles re-shipped.

The value of Exports from Van Diemen's Land to other Australian Colonies and New Zealand in 1845 was 164,814*l.*, which in 1849 rose to 212,638*l.*, the leading articles being flour, fruit and preserves, hay, barley, oats, bran, wheat, potatoes and timber. The value of Imports, from the same consuming sections, in 1845 was 139,371*l.*, which in 1849 declined to 81,666*l.*

The number of vessels, belonging to ports in the Colony on the 1st of Jan. 1849, were Hobart Town 162, with tonnage 14,640, and Launceston 47, with tonnage 3,772—total vessels 209, tonnage 18,412. The number of vessels employed in the coasting trade between Hobart Town and Launceston, during the year 1848, were inwards 20, tonnage 2,136, and outwards 17, tonnage 2,396.

In the same year the number of vessels, arriving in the two ports, were from Great Britain, 41; British Colonies, 545; Cadiz, 1; China, 2; Manilla, 2; Oporto, 1; South Sea Islands, 1; United States, 1; and Whaling Stations 54—total 648.

In 1848, the total Revenue was 129,543*l.*, and the Expenditure 136,193*l.* The Land Revenue was 77,151*l.*

Six newspapers are published at Hobart Town, and three at Launceston. On the island there are 53,794 Protestants, with a bishop at their head; 3,904 Roman Catholics, and 452 Jews, all of whom have their corresponding places of worship and educational establishments. There are 22 Public Day Schools, under the Board of Education, and attended by 1,161 pupils; 33 Church of England Schools, with 1,379 pupils; 3 Catholic Schools having 316 pupils, and 3 Infant Schools with 214 pupils. Besides these there are the Queen's Orphan Schools, at New Town, established in 1828, the expenses of which are partly paid by the Home Treasury and partly by the Colonial Government. The children, received into these schools, are those of prisoners undergoing probation, or sentence, orphans and deserted, whence they are apprenticed, or taken out by parents, or friends. The number remaining on the 30th of September 1848, was 448. The yearly expense of each child is from 10 to 12*l.*

The Medical department is most efficient. Besides the officers, duly appointed, there is an Examiner's Board, and lists of the qualified Medical Practitioners, as well as of Chemists and Druggists, are published every year. There is an Agricultural Company, established in London, and also an Agency, for the furtherance of the Colonist's interests. There are 7 Insurance Companies in the Colony, 7 Literary and Scientific Institutions; 5 Agricultural and Horticultural Societies; 6 Charitable Institutions and 4 Societies affording general relief; also 7 Free Masons' Lodges and 5 Benefit Societies.

Nine stage coaches run from Hobart Town and 7 from Launceston. A steamer plies to George Town and another to and from New South Wales. There are 6 commercial banks in Hobart Town and 4 in Launceston. Six light-houses have been erected on those points of the coast where caution is required, and printed directions issued as a guide to mariners. There is also a Magnetical Observatory, established by the British Government, in 1840, and conducted under the orders of the Admiralty. The Convict Department is well organized, with corresponding buildings, &c.

Public improvements, more especially in roads, are carried on with activity. A bridge was lately constructed over the Derwent, which serves to connect the line of communication between Hobart Town and Launceston, previously effected by a tedious and at times dangerous ferry. The river is spanned by an earthern embankment, or causeway, to the length of 2,300 feet and the supports of the bridge consist of 20 piers, 8 feet broad and composed of 12 piles each in a double row. Its length from the end of the causeway to the Northern shore, is 1,010 feet, with a breadth of roadway of 24 feet. The height of the roadway, above the highest high-water mark, is 9 feet, and in the centre is a rolling bridge for vessels to pass up and down. The whole work, extending to a length of 3,310 feet, or nearly three quarters of a mile, is the largest of the kind ever attempted in the Australian Colonies. The causeway was constructed by convicts, who also felled the timber in the neighbouring forests. It is computed that upwards of 1,000 trees were used in the construction of this bridge, many of them affording timbers from 70 to 100 feet long. In the channel the water is from 20 to 25 feet deep, and in nearly all instances the piles are driven to a depth of 40, and in some as far as 60 feet.

The Hobart Town papers notice the departure of a vessel, having on board 110 loads of Colonial timber, among which are 200 tons of blue gum for the Admiralty, to be landed at Woolwich dockyard, of which the largest plank is 94 feet and 4 inches thick by 16. There is another piece of timber shipped, weighing eight tons and containing 208 cubic feet of measurement, although it is only the siding of a tree. It is 3 feet 10 inches wide and 16 inches thick. There are also 4 spars, one of which is 71 feet long, and at the butt 2 feet thick, and at 66 inches from the butt 20 inches thick. It is exultingly remarked that such a specimen of timber, for ship-building, was never before sent home from any British Colony.

In fancy woods, Van Diemen's Land also stands pre-eminent, as may be seen by the specimens deposited in the Exhibition. The beauty of the Huon pine exceeds that of satin wood, or bird's-eye maple; the black wood equals rose-wood, and what is called dog-wood resembles the finest brown gnarled oak. The common musk bush, which in Van Diemen's Land becomes a tree, affords veneers, almost without a rival, as may be seen by the small work-table exhibited, which is made of this material.

The shipment of horses to Calcutta has also commenced, and generally a new spirit of enterprise prevails throughout the Colony. It should, however, be remarked that there, for some time past, the strongest possible feeling has been evinced against the continuance of the transportation system. Public demonstrations, of a firm and imposing character, have been made, breathing abhorrence of this prolonged practice, and pointing out the baneful consequences of crowding more convicts in Van Diemen's Land. These demonstrations have been accompanied by sympathetic declarations on the part of the sister Colonies, until at length this has become a general question among them, and an anti-transportation agitation is everywhere going on, with the exception of Western Australia. It is time that this question should be set at rest. Our Australian Colonies continue in the same state of health and vigour, as well as of attachment to the mother-country, and if ministers do anything to check their progress, or alienate their affections, they alone will be to blame.

NEW ZEALAND.

YOUNG, as this Colony is, the descriptions written of it, together with the official and semi-official reports published on its affairs, are already numerous; nay, its accumulated "Blue Books" are actually voluminous. As regards its early annals little more is required from me than what I have before recorded. In their social and commercial relations, even amidst great difficulties and many disappointments, the New Zealanders have made great progress, and their successful career cannot now be checked by any untoward accident. The best proof of their intellectual advancement is the fact that, at Wellington, a most respectable statistical almanack is now published, calculated for the meridian of the place, and among other valuable matter it contains sailing instructions, with bearings, &c., for the several harbours in the Colony.

In 1843 the European population in this Colony amounted to 7,109, and in 1848 to 10,483, including the military, of which Wellington bore the proportion of 6,338; Petre 170; Nelson 3,090; Akarva 265, and Otago 620. In the interval the number of emigrants introduced by the New Zealand Company into Wellington, Nelson, and New Plymouth, was 8,904 persons, at a cost of 233,543*l.*, or 26*l.* per head, including cabin passengers. This was the last census taken, but as the Colony has since been receiving immigrants at the average rate of 1,000 per year, and the Canterbury Settlement is now in the course of active progress, the present European population cannot be set down under 16,000.

In 1841, the imports into Wellington, Nelson, and Otago, amounted to 53,625*l.*, and the next year rose to 112,592*l.*, but subsequently declined and again rose in 1848, being returned at 107,412*l.*,. principally from Great Britain and British Colonies, with a small proportion from the United States. In 1841 the exports amounted to 14,447*l.*, and in 1848 to 22,875*l.* In 1840 the revenue was 836*l.*, and in 1848, 16,376*l.*, while the expenditure in the first-named year was 1,520*l.*, and in the second 42,111*l.*

A proclamation had been issued, repealing the present rate of postage, payable in the Colony, and establishing a local rate to come into operation on the 1st of April, 1851, when all letters and papers will be liable to the following rate of charges, viz. for every letter, not exceeding ½ oz. 2*d.*, and for every additional ½ oz. the same. The postage of all letters and papers, sent from the Colony, to be pre-paid and postage stamps to be used.

The extent of land, already cleared, is about 12,000 acres, much of which is in the course of pasture, but the Colonists grow nearly a sufficiency of wheat for their own wants. Orchards are thriving in each settlement; hops cultivated to some extent, and already has Nelson acquired a name for its good ale in the neighbouring Colonies. Barley is now an article of export.

The sheep in the Colony already exceed 130,000, most of which were originally introduced from Australia. According to a report, emanating from the Government Inspector of sheep at Otago, lambs are chiefly dropped in October, and the washing, clip and getting up of the wool take place in December. Sheep fatten well, and ewes kill from 48 to 71 lbs., Dinmonts from 80 to 84 lbs., and lambs from 40 to 56 lbs. Some wedders kill to 96 lbs. The average clip is from 3½ to 4 lbs., although occasionally it goes as high as 4¼; but the fleeces are considerably lessened in weight by the rough pasture, which bares the belly. The only disease experienced is the scab, but it is easily cured.

The horned cattle are estimated at 14,000, and bullocks average from 800 to 1,200 lbs.

Mining for copper had commenced, and in the return of exports from the port of Auckland, from the 6th of July to the 10th of October, 1850, are the following items, viz., copper ore 6,140*l.*, potatoes 2,547*l.*, and sawn timber 1,901*l.*

As an index of the growing importance of Auckland, it may be noticed that the last list of vessels, belonging to that port, included the following—barques 4; brigs 3; schooners 43. The total vessels registered were 87, tonnage 3,563, and men employed in navigating them 296.

For years timber must continue to be a valuable article of export, and is in demand in the South Sea Islands and California. Besides woods for ship-building, the pine is peculiarly well adapted to the construction of houses, on account of its lightness and ease of working. Flax, which has always been considered as the staple commodity of

New Zealand, is in more request, and worked up as bale lashing, finds a ready market at Sydney and Hobart Town. Some small quantities of worked flax are also finding their way into Wellington.*

The aboriginal population of the Southern Province may be estimated at about 25,000, and are gradually becoming not merely civilised, but also semi-English in their habits and mode of living. They have extensive tracts of land cleared and under crop, producing grain and vegetables. Many of them own horses and cattle; others are proprietors of small coasting vessels and fishing boats, while several heads of families have improved their dwellings and built them after the European style. As workmen they are sought after for bush-clearing, and have been found of the greatest service to Government in making roads, as well as to the settlers in labouring upon their farms and even as in-door servants.

There are several churches and schools scattered over the country; in fact, one in each of the large districts, and the publication of a weekly paper, in the native language, and called the New World, has commenced, and, we are assured, is already attended with beneficial results. "Let but the native paper circulate among the Maories," says a local authority of some weight, "and schools be established for youths, teaching the English language, and in twenty years' time the Maorie race will be undistinguished amidst the energetic and intelligent Anglo-Saxon."†

The New Zealand Company founded 4, or more properly speaking, 5 settlements in the Colony, viz., Wellington in 1839; New Plymouth in 1840; Wanganui in 1842; Nelson in 1842; and Otago in 1848, to which may now be added the Church of England settlement of Canterbury, now in the course of formation.

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* A method has been discovered on the spot to separate the glutinous substance from the fibres, the process of which is simple. The flax being cut is immersed in a boiler filled with water, in which a small portion of alum is dissolved—say 2 ounces to 3 gallons of water. The flax is then boiled from 1 to 2 hours, taken out, placed in cold water and washed by hand, the same as linen, when the whole of the green and adhesive part is separated and the fibres left perfectly free from every extraneous matter.

† Besides the above hebdomadal, the Wellington Independent is published every Wednesday and Saturday; the New Zealand Evangelist monthly; New Zealand Magazine quarterly; New Zealand Spectator every Wednesday and Saturday; besides the Southern Province and Cook's Straits Almanacks. At Wellington there is an Horticultural Society, a Jockey Club, and Mechanics Institute, one Bank and a Savings Bank, besides Freemasons' Lodges and other useful societies, combined in one general interest. If these facts do not denote progress, further testimonies need not be adduced.

Wellington has the finest harbour in New Zealand, and being the only one on the coast from Cape Palliser to Manakan, a distance of 500 miles, it is the depôt for all the produce of that part of the country. The available land, in immediate connexion with the place, is limited, but there are about 40,000 acres of first-rate, though generally heavily timbered. At the distance of 40 miles N.E. is the fine valley of Wairarapa, containing about 300,000 acres of excellent land, fitted for both pasture and agriculture. At about the same distance W. commences an extensive country at Waikanae, and gradually widening to Wanganui, 120 miles from Wellington, and presenting an immense extent of perfectly level land, estimated at considerably above a million of acres, of which by far the larger part is of excellent arable quality, and nearly the whole covered with beautiful pasture.

This is now being connected with Wellington by the military road, already available the whole way for horses and two-thirds of it for carriages. The Wairau plains also, on the other side of the Strait, though nominally connected with Nelson, are in reality an appendage of Wellington, being much more accessible from the latter port, to which the settlers in the Wairau district already resort for a market. The population of Wellington, exclusive of military, in 1848 was 4,700, since when a considerable increase has taken place, but the annual census has not yet appeared. There are 15 places of worship in Wellington, with schools attached to the principal ones, and 22 hotels and taverns in the district of Port Nicholson. The officiating ministers, in the Southern Province, are 10 of the Church of England; 2 of the Free Church of Scotland; 2 Reformed Presbyterian; 2 Congregational; 2 Wesleyan Methodist; 2 Primitive Methodist; 3 German Lutheran; 1 German Gosner Missionary Society; and 2 Catholic.

New Plymouth is situated just at the North of Cook's Straits, surrounded by an extensive district of the finest land for agricultural purposes, but deficient in natural pastures. There is no harbour, but the roadstead is free from serious risks, and there is an excellent boat establishment kept up for communication with the shipping. The settlement, which contains a self-supporting population of British Colonists, is in a healthy and prosperous condition, exporting a considerable quantity of produce to other places in New Zealand, as well as Sydney. Its population is about 1,400. There are 4 places of worship with schools attached.

Wanganui is an offshoot of Wellington, situated on a fine river for inland navigation, but which, in consequence of a bar at the mouth, does not safely admit vessels of more than from 50 to 100 tons. The country round is fertile and pleasant, forming part of the great block which extends from its Western limits to Waikanae, 50 miles from Wellington. It will some day become an important district, and its population is already 400, exclusive of a military detachment of 300 or 400 men stationed there.

Nelson, situated in Blind Bay, is, in point of agricultural and pastoral production, the first settlement in New Zealand, although behind Wellington in commercial enterprise, as well as in population. It also has the best climate in the Colony, and, like Plymouth, is self-supporting and already exports to some extent. The harbour is safe and commodious, affording facilities for ship building and repairing. There are from 3,000 to 5,000 acres of tolerably good land in immediate connexion with the port. The remainder, amounting to about 200,000 more, is partly situated in Massacre Bay, W. and 40 miles distant, and the rest in the Wairau district, which is entirely disconnected from Nelson by a heavy chain of mountains, and, as before observed, may more properly be considered as an appendage of Wairau, although allotted to Nelson land-purchasers and occupied by them. In the district there are 20 places of worship and several schools.

Otago, on the East coast of the Middle Island, is a Class Settlement, founded on the Scotch Free Church principle, that is, all the public funds, available for ecclesiastical or educational purposes, are applicable in conformity to its rules and practice, and the settlement receives from that Church its chief support at home. It has a good harbour, capable of receiving vessels of from 500 to 800 tons, drawing 16 or 17 feet. It contains an abundance of good agricultural land, particularly in the Molyneux, or Southern district, and is connected with immense sheep pastures on every side. The population, which is by no means exclusively Scotch, is about 1,500, and increasing by regular immigration from home. There are scarcely any of the Aborigines in this, or any other part of the Middle Island.

The Canterbury Settlement, which is now forming at Port Cooper, will border upon and comprise the most extensive level districts in New Zealand, there being not less than from 4 to 6 million chains of perfectly level land, chiefly in immediate connexion with the harbour, which is one of the most accessible in the whole Colony and tolerably commodious inside. In fact, it may be entered by shipping of every class, and without the aid of a pilot. The surrounding plains, as well as the adjacent hills, are covered with first-rate pastures, there being scarcely any fern, and nothing but an unbroken grass country, extending over some millions of acres. The surveys and public works are in the course of progress, and, when the names of the Committee and Officers of the Canterbury Association, for founding a settlement in New Zealand, are considered, in furtherance of which the Archbishop of Canterbury announces himself as President, and is supported by a host of influential names, commencing with the Archbishop of Dublin, much from this spirited and patriotic undertaking may hereafter be expected.

In our new Colonies, south of the line, among the young communities rising up there, sheep and cattle have to the settlers invariably proved the first and readiest elements of wealth, and from all the accounts before us, independent of other resources, New Zealand is blessed with ample means to raise both. At this distance minute results cannot be expected; but, in reference to wool, as a proof of progress it may be repeated that, in 1849, we imported from New Zealand 661 bales, and in 1850, 1,502, or more than double. An influential organ, on the spot, and under a recent date, speaking on this subject, remarks "that the quantity of wool, exported this season, will add considerably to our export list and prove, beyond a doubt, the great capabilities which the South possesses for the growth of this article;" adding, "a year or two more, and we shall be totally independent of other Colonies both for sheep and cattle."

The establishment of the Canterbury Settlement, in this Colony, is an event of too much importance to be overlooked by me. The plan of the undertaking has, however, been so frequently and so recently before the public, and ushered in with such respectable names and under such high auspices, that a very short outline only of its leading features is required. The Association, formed for the establishment of this Settlement, started, as regards religion, on the exclusive Church of England principle, with an adequate capital, and was, by Royal Charter, incorporated on the 13th of November, 1849. Through an arrangement, made by the Directors with the Colonial Department at home, the Association became possessed of a large and select tract of land, in every respect regarding right, title and pre-emption, in the first instance, by their own organs described thus:

> "The site of the settlement is a territory on the East coast of the Middle Island of New Zealand, containing about 2.500,000 acres in one block, consisting mainly of three grassy plains or prairies, named Sumner, Whately and Wilberforce, and intersected by several rivers, with their numerous tributaries, running to the sea from an Alpine chain of snow-capped mountains. All along the spurs and foot of this range, the forest, of which the plains seem to have been stripped by fire, extends in primeval grandeur. Near the middle of the coast line, Banks' Peninsula, which

comprises about 250,000 acres of mountain land, the greater part of it being still covered by the forest, contains two lake-like harbours, with several smaller ones. The capital of the Settlement is Lyttelton, in Victoria Harbour (formerly Port Cooper).

"The latitude of this place is 43° 35′ South, which, as respects temperature, corresponds with about 47° in the Northern hemisphere, being that of the most pleasant spots in the South of France. The climate exactly resembles that of Tasmania, being chiefly remarkable for warmth without sultriness, freshness without cold, and a clear brightness without aridity. Both the grape, for which England is too cold, and the gooseberry, for which the South of Italy is too hot, come to high perfection. In consequence of the scale of the natural features of the country, the scenery is very beautiful, and in some places magnificent. The fertility of the soil has been abundantly proved by the experience of successful squatters. The prairie character of the main part of the territory, together with the dryness of the atmosphere and the mildness of the winter, indicates that the most suitable occupation for capitalists will be pastoral husbandry—the breeding of cattle, horses and sheep; but the absence of timber, the absence of drought, and the natural richness which produces grass in abundance without man's labour, explain why the arable lands of the squatters have yielded large returns, and show that the plough and the flail will be plied, successfully, by those who may prefer tilling the earth to the management of live stock. Drought is unknown. As respects flowers, kitchen vegetables and all the English fruits, with the addition of melons and grapes, the gardens of the French settlers at Akaroa and of the squatters on Sumner Plain, are described as teeming with produce of the finest quality and most beautiful appearance. Sea fish is abundant, various and of excellent quality. The only wild quadruped is swine; they are numerous, are very good to eat, and afford plenty of hard sport. The plains abound with quail and a variety of wild fowl. There are no snakes, wild dogs, or other indigenous vermin.

Two leading facts, with regard to the country, now forming the Canterbury Settlement, may be properly mentioned here. The plan of the colony was formed before the site was chosen; and the framers of the plan, in choosing a site, were influenced by no predilection for New Zealand, or for any part of that country, but were solely guided by the wish to obtain that unoccupied place in the Colonial Empire of Britain, which seemed most fully to combine the most favourable natural circumstances."

An investigation into the natural capabilities, or the commercial and growing resources of New Zealand, is not a topic which I am called upon to discuss. Both have been satisfactorily established in Parliamentary Committees, as well as by the testimony of residents and travellers. The sketch, given of this Colony in my previous publication, is complete, as far as it goes, and subsequent experience has served to prove the excellence of the climate and its adaptation to the constitution of European Colonists, as well as to the culture of imported field and garden plants. Owing to the quantity of moisture, vegetation is there vigorous, even in those places where only a thin layer of vegetable earth covers the rocks.

The district, chosen for the Canterbury Settlement, chiefly consists of a grand and continuous plain, intersected with rivers, and extending in a favourable position, apart from the older establishments and the vicinity of the natives, whose number, within the space already allotted, does not exceed 359, and they have already been taught habits of industry. The coast is bold and access easy, the harbours safe and with great conveniences for shipping. In the New Zealand Islands it is well known that there is a profusion of timber, some of a very superior and useful kind, particularly for ship building, and in the proposed Settlement there is also an abundance of water power, suitable for the erection of flour and saw mills. The chief exports of the Canterbury district, as in all new settlements, will consist of raw produce. Its great plains offer peculiar advantages to the breeders of live stock, and are specially adapted for wool-growers. As the Settlement fills up, and the cultivation of the land extends, an export trade in grain may also be looked for. Carboniferous formations have been discovered at either extremity of Middle Island, and the coal procured from one of them, situated on the shores of Coal Bay, near Nelson, has been tried and very favourably reported upon by the commanders of two of H. M. steamers.

The Canterbury Association commenced their operations by sending out, from the 1st of September 1850, to the 8th of January 1851, eight vessels, having on board 210 chief cabin, 158 second cabin, and 1,091 steerage passengers, besides 58 who worked their passage out—total, 1,512 persons.

From several accounts published, it appears that, in the embarkation of emigrants to New Zealand, the agents of the Association introduced several important improvements, tending to show that when operations of this kind are managed systematically, and under proper supervision and responsibility, a degree of comfort and safety may be attained at a lowness of charge, in most cases out of the question in reference to advertizing vessels, or even such as are freighted on tender. In the instance in question, 42*l.* were charged for the first cabin, 25*l.* for the second, and 16*l.* for steerage passengers, and in these three gradations, the difference of accommodation, both as regards space, cleanliness and victualling, compared with the ordinary run of emigrant ships, was most striking. As regards the cost of steerage passages, from 1847 to 1850, it would seem that the sum per head, paid by government, was about 16*l.* to Australia, and 1*l.* 5*s.* additional to New Zealand, while the charge incurred by the New Zealand Company per emigrant, from 1839 to 1844, was equal to 31*l.*

In despatching emigrant vessels, when everything is hurry and anxiety—when the feelings of those on board vibrate between hope and regret, so long as their native shores are before their eyes, there is nothing which disturbs and irritates the emigrant so much as the want of punctuality in the promised day of sailing, and of this most blameable defect some awful instances were recently brought before the public. By keeping good faith in this, as well in every other respect, at starting, mutual confidence was established between the agents of the Association and the persons embarked, and although 8 vessels were successively despatched, with the number of emigrants above stated on board, some of whom were taken free, others who paid part of the passage-money, and a given number the whole, not a single complaint was heard. The cabin passengers amounted to about 24 per cent. of the whole, so that a fair amount of capital, with intellect to direct it, was combined with a supply of labour, while at the same time the good was gained that, owing to the example and influence of the superior class going out, steerage emigrants of a higher order were induced to join, some of whom were in a condition to pay part of the charge corresponding to them, so that their average expense to the Association was under 12*l.* per head.

Three of the Association's first ships arrived at Port Lyttelton on the 12th of December. These vessels left Plymouth on the 7th of September, thus performing the voyage in 96 days. On the 27th a fourth ship arrived, and from them in all 791 immigrants were landed, the greater part of whom found temporary accommodation in the barracks. When the Charlotte Jane, the first vessel, entered the harbour, H.M. Sloop-of-war, Fly, was lying at anchor, having on board the Governor and Lady Grey, who had come down in the hope of being present at the arrival of the first body of Colonists, coming there under such extraordinary circumstances. Nothing could be more opportune, or more satisfactory to the new comers, in consequence of the arrangements made, on the spur of the moment, for their landing, reception and eventual location.

Such a sudden accession of numbers in a small place, which before only contained about 300 inhabitants, of course, gave rise to much inconvenience and confusion, but every thing passed off pleasantly and all the immigrants seemed pleased. Houses began rapidly to spring up, and arrangements were made for the immediate establishment of a news paper, called the Lyttelton Times, for which all the requisites had been taken out, even including the editor, to the first number of which the British public are chiefly indebted for the accounts relating to this memorable event in New Zealand. According to these the Canterbury Colonists were preparing to set out for the plains, there to receive their allotments and enter upon their several occupations.

SOUTH AFRICA.

Owing to the derangements, consequent upon the Caffre war, the agricultural capabilities of this Colony have not been called forth in the manner that was wished and expected. Amidst so many and such lamentable disasters as those which the inhabitants have experienced, the administrative, commercial and social organization of the Colony has nevertheless materially improved. The postal regulations are clear and explicit, as are also the dues and fees exacted in public offices. Comprehensive instructions for the navigation of the coast have been issued, and custom-house notices placed within the reach of every one. There are 4 commercial banks at the Cape, and 1 for savings-deposits. There is also a Frontier and Agricultural bank, as well as an Eastern Province bank. Four insurance Companies are established at the Cape, and 11 foreign Consuls reside in the Colony for the protection of trade.

In the year, ended 5th of January, 1849, the total value of Imports into the Colony was 1,152,018*l.*, and Exports 514,377*l.* The arrivals of vessels were 806, including coast-wise. The wool exported from Cape Town was 1,590,952 lbs., valued at 69,203*l.* and from Port Elizabeth 2,079,968 lbs, valued at 86,010*l.*

The total Imports into Cape Town, during the year, ending January 5th, 1850, were 682,235*l.*, showing a decrease compared with the preceding year, of 140,137*l.*; into Simon's Town 8,615*l.*, and increase 5,452*l.*, and Port Elizabeth 253,685*l.*, showing a decrease of 72,608*l.*

The total amount of the territorial produce, shipped from Cape Town in the year above mentioned, was 186,105*l.*, and among the articles was wool, valued at 63,398*l.*

From Port Elizabeth, in the same year, the Colonial Produce shipped amounted to 173,249*l.*, among which was wool, to the extent of 3,457,734 lbs., valued at 136,034*l.*

As an evidence of remarkable progress in this staple commodity, it may be remarked that, in 1833, Cape Town shipped 73,324 lbs. of wool and Port Elizabeth 39,753 lbs.—total 113,077 lbs., whereas in 1849 the first exported 1,567,212 lbs. and the second 3,457,734 lbs.—total 5,024,946 lbs.

In 1847 the Colonial revenue was 222,013*l.* and expenditure 193,688*l.*, and in 1848 the first was 234,375*l.* and the second 245,984*l.* The revenue derived from the Customs, which is the most important, as well as the most extensive source, in 1847 amounted to 101,738*l.* and in 1848 to 105,459*l.*

As regards the wool, imported from South Africa and grown in the interior, it may be remarked that it is not generally in so clean a state, as the manufacturer could wish, it being often mixed with sand. This is owing to the want of convenient streams, for although there are large and useful rivers, on certain lines, descending from the mountains through the Colony towards the sea side, rivulets, or local and transverse feeders to them, seldom occur. This is a great drawback to the inland wool-grower, who has to wash his sheep, and in fact obliges him to travel his flock to a considerable distance in order to find a suitable convenience, and when in this respect he has been successful, the other advantages of clean pastures and extra care for his washed sheep are not within reach.

In this dilemma, and with a view of obviating delay and saving an additional expence, the owner is frequently obliged to shear his sheep, as they stand in a greasy and dusty state, afterwards carting his collected fleeces to a suitable spot for washing, from which the sheep-runs are situated at a considerable distance, and the whole operation too often left in charge to inferior servants. When an opportunity presents itself for washing sheep on the spot, and under the master's eye, the party interested need not be reminded that the fleece becomes much increased in value, as, besides the requisite of greater cleanliness, when it is offered in market, the buyer has the means of selecting the portion of combing wool which is most esteemed.

The French appreciate South African wool, weaving it into fancy articles with a fine-spun cotton warp, by which means a delicate article is produced; but, in order to do this, the raw material must be clean, and the staple about 2 inches. The British manufacturer is also a willing competitor for this kind of wool, when in good condition, its usual price being from 14d. to 16d. per lb.

Natal papers, of a recent date, contain a statement of the trade of the Colony for 1849, showing the Exports to have been 11,265*l.*, chiefly consisting of ivory, animals, butter, hides and grain, and the Imports 55,921*l.*, of which 28,000 were on government account. Some small shipments of wool and cotton had been made, and it was thought that the growth of the latter article might be greatly increased, with profit to the settlers; but no expectation was held out that there the breeding of sheep would answer.

SHEEP'S WOOL FROM CHINA.

This is a new source of supply which requires a brief notice from me. Early travellers assured us that sheep were by no means neglected in

China, and Barrow pointedly remarked that the vallies of Tartary furnish the broad-tailed sheep. Another observant sojourner in the same region informed us that, "in the Northern Provinces, sheep are reared on lands which would not pay for any other kind of appropriation; that they are of the long-tailed and long-legged breed, similar to those of the Cape," adding that "at Shanghai they sell for about 4 dollars per head, and at Canton from 10s. to 12s., the price of labour being a *mace*, or 4d. per day."*

Closer intercourse has since enabled us to ascertain that flocks are numerous on all the Mongolian borders of China, in Shantung, as well as in many hilly districts of the empire, and looking to the enormous consumption of felted wool, used for shoes, caps, and other articles by the natives, coupled with the known low price of the raw material in the frequented markets, it is presumable that the production is much more abundant than we generally imagine, and hopes are even entertained that an export trade may thereon be founded in the course of time, and when the internal communications have been improved.

The only remaining doubt, regarding the successful issue of so novel an enterprise, arose out of the uncertainty as regards the fitness and applicability of the several qualities of this kind of wool for European manufactures, a point which could only be decided by experienced persons on the exhibition of proper samples. This subject was, however, deemed one of such importance by the British traders, who availed themselves of the new opening for commercial pursuits in China, that one of the leading firms in Shanghai, towards the middle of last year, sent to England a trial shipment of some 200 bales, with the view of putting the eligibility of China wool, as a new export article, to a practical test.

But this step was not determined upon until samples, on a small scale, had been previously transmitted home and favourably reported upon, among which were some, marked as being of the first and third quality, from Hoochoo, the great Silk District in the immediate vicinity of the grand canal, and thus of easy transit to the shipping port. The sample, distinguished as No. 1, was washed on the sheep's back, and could be purchased at an easy rate. From Shantung similar wool can also be obtained by sea, and other parcels from Tartary. The average price of sheep, bought in any number at the place of pasturage, is represented to be about 5*s.* per head, and consequently the fleece can be sold low. These pastures, where the supply is abundant, are not more than

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* Five years in China, from 1842 to 1847, by Lieut. F. C. Forbes, R. N., Commander of H. M. ship Bonetta.

60 leagues, or an 8 days' journey for sheep, from Tientsin, at the mouth of the Peiho, whence at a very small charge junks bring down cargoes to Shanghai.

The first-shipment of wool, of this class, which came under the inspection and sale of our firm, was received from Shanghai and consisted of 50 bales. It was rather clean than otherwise, but short in the staple. Evidently it had been clipped from the *Doomba*, or fat-tailed sheep, a breed so very general in the Eastern portion of the globe, and was sold at our public sales in June, 1850, realizing 3*d*. 3¾*d*. and 4*d*. per lb.; but our manufacturers, never having before seen the article, bought cautiously. Since then we have received applications for more wool of the same kind, showing that on trial it was approved of, and there is every reason to expect that it will hereafter hold a more favourable position in our markets.

A further importation of Chinese wool from Shanghai recently reached our shores, consisting of 146 bags of little more than 200 lbs. each. This parcel seemed to be the produce of various kinds of sheep, thus confirming the opinion, before expressed, that the flocks in the Celestial Empire consist of different breeds, accidentally blended. This persuasion was in great measure confirmed by an inspection of the samples, as will appear from the subjoined report upon them by a competent judge.

> "98 Bales of Wool, ex John Bunyan, a Shanghai.
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> "This wool is much mixed in the bales, as regards quality and condition. Some of it is well washed, of very soft texture, and quite free from kemp or stitched hair, a good proportion being lambs' wool. The other part is badly conditioned, being greasy and mixed with kemp hair and also of a much coarser fibre, so that in the same bale there is wool of all qualities, some evidently of the English breed.
>
> "48 Bales Wool, ex Cornhill, a Shanghai.
>
> "This wool is more greasy than the other parcel, and is also mixed in qualities, with the exception of two bales, one of which is white skin wool, of fair quality, but full of lime; the other is rubbishy shank bits &c., and should have been kept apart. The packages, in both shipments, are suitable, and in the form of Cotton Bales, weighing 2 cwt. 1 qr. each."

In so varied and extensive a country as China, it naturally may be presumed that there is a diversity in the animals of the same species, such as in our own limited country we experience in reference to sheep. That the Chinese have good wool may be deduced from the samples of carpets, rugs, serges and other manufactured articles which occasionally come under our notice; but, of the sorts, easiest for shipment, hitherto we scarcely have received anything more than samples, and these in a very imperfect state.

More recently my attention was called to the inspection of various samples of Chinese wool, received by the Board of Trade, all the produce of fat-tailed sheep, and consequently short in the staple. Of these I will especially notice 6, adding our opinion upon them. Sample 1st,—very soft, of the short Cashmere character, worth 7*d.* per lb.; 2nd,—soft, longer, but kempy, 6*d.*; 3rd,—soft and full body, of the Peruvian character, 10*d.*; 4th,—clean short, English character, 7*d.*; 5th,—very soft, like kempy Cashmere, from 6*d.* to 7*d.*; 6th,—full bodied, and of the Peruvian character, worth 10*d.*

THIBET SHEEP AND WOOL.

In my last publication I gave some account of these extraordinary animals, and as a few of them were lately brought over to England, for the first time, I cannot do better than briefly resume the subject. As a proof of the interest which the East India Company's officers take in the development of the resources of the country, in the way of explanation I should premise that, under date of the 7th of March, 1848, a letter, of which the subjoined is a copy, was addressed from Simla by Captain A. Cunningham, Commissioner on the Thibetan frontier, to the Resident at Lahore.

"I have the honour to report to you that a small flock of sheep, which I bought in the Purek district of Ladach, has arrived safely at Simla. I was induced to purchase them by Moorcroft's statement that this breed would be an invaluable appendage to the cottage of the British peasant, as they could be maintained at scarcely any cost.* The flock now consists of 20, viz.—4 rams, 15 ewes and 1 lamb. As Moorcroft's flock was stolen at Dras, and as no other specimens of this breed have, to my knowledge, been brought to India, it appears to me probable that the Government would be anxious to secure my small flock, to be transmitted to the Court of Directors for domestication in England. I shall be much obliged, therefore, if you would kindly ascertain the wishes of Government on this subject.

"I can add but little to Moorcroft's faithful description of the Purek sheep, excepting that they are the hardiest domestic animals I ever met with, not one of my flock having died during their long journey from Purek to Simla, although exposed to 12 days of snow. I can also corroborate Moorcroft's statement that the dog is scarcely more perfectly domesticated than this little animal, which, when of full growth, is not larger than a common lamb of 5 or 6 months.

"I strongly recommend the introduction of the Purek sheep in England, on account of the fine quality of the wool, the goodness of the flesh, and the ease and small expence at which it can be reared."

This communication was followed by the subjoined, addressed, by the secretary to the Chief Commissioner of the Cis and Trans Sutlej

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* Vide Moorcroft's Travels in the Himalayan Provinces of Hindostan and the Punjab, in Ladach and Cashmere, in Peshawar, Caboul, Kemduz and Bokhara.—2 vols. Lond. 1839.

States, to the Secretary of the Governor of India, dated Lahore, March 11, 1848:

> "I am directed by the Honourable, the Chief Commissioner, to request that you will obtain from the Right Honourable the Governor in Council, any instructions which his Lordship in Council may be pleased to give regarding the flock of sheep, mentioned by Captain Cunningham in the accompanying copy of a letter from that officer, this day received.
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> "The Chief Commissioner observed that, if the Governor-General determines to send these sheep home to England, Captain Cunningham had better make arrangements for their being taken care of in the neighbourhood of Simla till the month of November next, when they might be sent to Calcutta, without much risk, and shipped to their destination."

The little travellers were at length embarked at Calcutta, towards the commencement of October, 1848, and in due course arrived safe in England. On their passage two or three died, but as many more were born, so that the original number of 20 was kept up, of which three were stated to be wethers, although not so mentioned in the letters from India. At the India House so unusual a charge was no doubt felt rather embarrassing, but, as a resting-place it was determined to send the new comers to the grounds of the Zoological Gardens in the Regent's Park, until they were finally disposed of, and where, it was thought, they might be deemed objects of public curiosity.

There I inspected them, and could not help feeling a lively interest in the occasion which called me to those grounds. In their general appearance, besides a diminutive form, I found no distinctive character in them differing from our ordinary races of mountain sheep, and, had they been indiscriminately seen on our Scotch, or Welsh mountains, they would not have attracted the notice of the common observer. Evidently they were not then on suitable ground, and last year I examined the fleeces of a portion of this little flock, clipped, it is to be borne in mind, under disadvantageous circumstances. The wool was found to be a grade better in quality than ordinary Scotch, and when shown to collectors and dealers from Scotland, they all agreed that it was only worth 1d. per pound more than the average fleeces of their black-faced sheep.

More recently my attention was directed to the results of several crosses, more especially between a Leicester tup and Thibetan ewes, and also with a Thibet tup and some South Down ewes, the property of an East India Director, who, with a truly patriotic feeling, was desirous of ascertaining whether these unions would lead to the production of fleeces likely to become beneficial to the woollen manufacturing interest. Subjoined is a brief statement of my observations. I should, however, premise that, in each case, the fleeces were washed twice upon the sheep's backs, and consequently turned out as clean as the usual clips in England; but, the yellow bits and dag-locks had not been removed, as the old and well-meant English law enjoins all flock-masters to have done previous to their fleeces being offered for sale.

As regards weight of wool, I found that the cross of a Leicester tup with a Thibetan ewe produced a tup fleece of 11 lbs., and ewe 9 lbs. The cross with a South Down tup and 4 Thibetan ewes, was followed by an offspring, all ewes, say 2 of 7 lbs. each, and 2 of 7½ lbs. The wool, taken from the back of the Leicester tup cross, measured 11 inches in length, and from the South Down crossed ewes 7.

Although there would be no difficulty in selecting localities, in the British Isles, elevated and cold enough for the adoption of Thibetan sheep, and in some respects resembling the Himalayan mountains, still I conceive that it would not be easy to select a spot sufficiently dry, this being one of the essential properties in the climate of Thibet, to which the fine wools of the goat, sheep, and even of the dog, are mainly attributed.

The high-lands in Scotland and Wales seem to be our most eligible situations; but, unfortunately, the prospective advantages of this interesting and costly importation have in great measure been lost, by the members of the flock having more recently been dispersed. A few of them, however, came into the possession of his Royal Highness Prince Albert, and in the hurry of the moment, and for convenience, he had them removed to the Isle of Wight. Should this small portion of the first Thibetan sheep, brought to our country, be hereafter transferred to Balmoral, or some other adequate locality in Scotland, and there nurtured as a breeding stock, the extra tups might hereafter be distributed among Highland flock-owners, and thus eventually improve the wool of their native breeds.

There is no new feature in East India wool which calls for a separate article from me. Its growth continues to receive every attention which the circumstances of the country allow, but its importation has not increased within the last four years, as may be seen from the subjoined returns.

EAST INDIA WOOL.	1846.	1847.	1848.	1849.	1850.
Into Liverpool . . .	6,746	2,901	6,336	2,931	3,474
Into London . . .	4,533	5,221	10,512	8,110	6,230
Bales . .	11,279	8,122	10,848	11,041	9,704

ALPACA WOOL.

After the opinions which I expressed upon this raw material, even in the earliest stages of its introduction, I rejoice to find that its consumption progressively increases, because it does not compete with either our home or Colonial production, while in our manufactures it affords an interesting variety. I before traced the period of our acquaintance with the wool of the alpaca, pointing out its properties and uses, and being now well known, I shall merely add that, in 1848, the quantity imported rose to 1,521,370 lbs., of which 15,174 were re-exported to Holland; 19,100 to Belgium; and 300 to the Hanseatic Towns—total exported, 35,174 lbs. The remainder was, of course, consumed in our own looms. In the year, ended January 5th, 1850, the quantity of the same article imported was 1,655,800, and that ended January 5th, 1851, 1,652,295 lbs., of which, during the first period, 126,082, and in the course of the second, 333,859 lbs. were re-exported.

Of the variety of wools, in modern times introduced into this country, none has been found so generally useful to the manufacturer, for light wear, as that of the alpaca, and, although the fleeces vary in colour, through the improvements in dying they are all turned to account. The prevailing colours are black, white, brown and grey, accompanied by occasional mixtures. The white is the basis of a delicate texture and admits of a blue hue. The black is applied to articles made for ladies' dresses, and admirably well suited for clergymen's gowns. It is also extensively used for the linings of gentlemen's coats, in which it is fast superseding the use of silk, being considered much more durable and less liable to stain. The grey and brown, without dying, are made into a light cloth, worn in summer and in hot climates. Alpaca wool is usually woven upon cotton warps, and sometimes silk stripes and figures are introduced, in order to vary the patterns for ladies' dresses. The weight of each bale is about 100 lbs., and the importations are chiefly into Liverpool, where, in 1850, 33,667 bales arrived, and only 6,064 in London. At the former place 3,000 bales lately sold at upwards of 2s. per lb.

ANGORA AND CASHMERE GOATS' WOOL.

In 1848, the quantity of mohair, or goats' wool, imported into the United Kingdom was 896,865 lbs., of which 62,673 were re-exported to Belgium; 28,732 to Holland; 6,272 to the Hanseatic Towns; and 300 to Portugal; total 97,977 lbs. In 1849, the quantity imported rose to 2,536,039 lbs., of which 50,480 were re-exported to the

United States; 31,671 to Belgium; 25,976 to France; 21,340 to Holland; and 670 to Russia—total re exported 130,145 lbs. To show the gradual rise in our importations of this article, the following comparative returns are annexed:

	1846.	1847.	1848.	1849.	1850.
Goats' Wool—Bales...	5,231	7,023	5,468	13,254	12,884.

Angora goats' wool, for several years past, has been used by our manufacturers for plush, as well as for coach and decorative laces, and also extensively for buttons, button-holes, and braidings of gentlemen's coats. It is equally made up into a light and fashionable cloth, suited for paletôts and over-coats, having besides the advantage of repelling wet. In France this article is now applied to the manufacture of a new kind of lace, which in great measure supersedes the costly fabrics of Valenciennes and Chantilly. The Angora goats' wool lace is more brilliant than that made from silk, and, costing only half the price, it has come into very general wear among the middle classes. The same material is also manufactured into shawls, which sell from 4*l.* to 16*l.* each. When Angora goats' wool was first introduced, it realised only 1s. 3d. or 1s. 4d. per pound; but, recently on arrival it has been sold for 1s. 9d. or 1s. 10d.

In Section VI. of my previous work, I dwelt so long on the "Goats' Wool of Angora and India," that no further elucidations, as regards the sources of our supply in reference to the first, or the pains taken in France, under the highest auspices and commencing even as early as 1827, to naturalize the Cashmere goat, can be expected from me. A new and interesting incident has, however, occurred, among ourselves, which I cannot leave unnoticed.

For some time past His Royal Highness, Prince Albert, has kept a small flock of Cashmere goats in Windsor Park, and, recently having had them shorn, he felt desirous that their wool should be manufactured into articles of dress, on his own account, in the hope that the results of so novel an experiment might hereafter prove beneficial. On a former occasion, I had been instrumental in the production of textures, made from an alpaca fleece, equally grown in the Royal Domain of Windsor, as well as at all times strenuous and persevering in my exertions to recommend the use of goats' wool to our manufacturers, and an application being made to me, through a direct channel, I undertook to have his Royal Highness's wishes accomplished, so far as regarded his Anglo-Cashmere fleeces. The proposal was accordingly made by me to Messrs Thomas Gregory and Brothers, of Shelf, manufacturers of part of the Queen's alpaca textures, in 1844, and also to Messrs J. Haley and Son, of Bramley, near Leeds, who cheerfully took the task upon themselves.

When fairly commenced, this task, however, proved to be by no means an easy one. In its raw state, Cashmere, and indeed all other kinds of goats' wool, is peculiar in its character, consisting, as it does, of two distinct materials, the one wool and the other kemp. When picked, this wool is soft, rich and lustrous; indeed superior to any lambs' wool that possibly can be produced, and afterwards divisible into two or three qualities. The kemp is a coarse and harsh hair, straiter, and, when the animal has not been shorn for some time, the spiral points out-top the rest of the fleece.

So intermingled with each other are these two materials, that it becomes a matter of the greatest difficulty to separate them, and as no mechanical process has yet been invented completely to effect this purpose, as regards Cashmere wool at least, it has to be done by the hand, fibre by fibre, a sedentary, tedious and expensive operation. This is the reason why choice shawls are so dear in Cashmere, although labour there is so extremely cheap; but, besides, this article is a monopoly, held in the right of the native rulers, who charge a heavy export duty upon it.

To have performed this work here, in the ordinary course of business, would have incurred an expense out of all proportion to the results anticipated; but, no sooner was it known, in the surrounding districts of Halifax and Leeds, that Prince Albert desired the experiment to be made, than some hundreds of most respectable persons, with leisure on their hands, volunteered to perform the preliminary labour of separating the coarse from the fine hairs. A small quantity of his home-grown wool was accordingly meted out to each, and all set to work earnestly under the direction of the manufacturers; the only remuneration given, or required, being an elegantly engraved certificate, with a view of the Crystal Palace upon it, as an ornament, and stating that the holder had been employed in forwarding his Royal Highness's experiment in the manufacture of Cashmere goat's wool. So great in fact was the enthusiasm, excited in both neighbourhoods, that for some months upwards of 1,000 persons, of all grades and conditions, during their leisure moments were employed in this minute and troublesome undertaking.

When the preparatory work had been accomplished and the wool collected in, no small difficulty arose from the perplexity of again dividing and apportioning the small quantity of the clean material obtained, so as to make warp and weft yarns for the loom process. Each manufacturer entered on a distinct department. The brocade dresses were made by Messrs Gregory, and the white one, exhibited, by competent judges has been pronounced elegant in its appearance, the pattern being that of the wild strawberry, tastily disposed so as to form a trail. The larger pattern of the coloured dress is not so good, but the effect is broad and showy, and for the first experiment of the kind beyond all doubt extremely creditable to the manufacturer; although, in both instances, the warp was necessarily composed of silk; but by this means the Cashmere wool is thrown to the surface on both sides. The white shawl, manufactured by Messrs Haley, has a very delicate appearance, and the extreme fineness of the material on examination is easily perceived. The other is equally remarkable. In furtherance of the experiment, in all its parts, Messrs Haley wrought up the kemp, or rejected hairs, into a specimen of coarse cloth, placed beside the other textures in the way of contrast.

From its novelty and hoped-for advantages, this contribution of His Royal Highness became an object of great interest to all persons connected with our woollen and worsted manufactures, perhaps the more so as it indicates the energy and practicability of the Royal Contributor's mind, whose exertions in the progress of industry, as well as in bettering the condition of our working-classes, never flag. How far British artists may hereafter succeed in rendering Cashmere wool the basis of a new texture remains to be seen; but, from what is above stated, it will easily be perceived that the undertaking must be a most arduous one, and will require extraordinary ingenuity and skill.

Although in an economical point of view the present attempt may be said to have failed. the greatest credit is nevertheless due to the Prince who promoted it, and had it done nothing more than prove the earnest feelings, entertained towards him by those engaged in the preliminary labour of assorting the wool, it would have been a source of gratification to every loyal subject. When the weaving experiment closed, sanguine hopes were entertained that Donisthorpe's new combing machine, of which a special notice will be found in my "Preliminary Remarks," would have separated the fine Cashmere wool from the coarser hairs and kemps, and accordingly towards the close of June a meeting took place at Bradford, between the inventor and the manufacturers more immediately interested, for the purpose of having a fair trial. The results obtained I could not better describe than in the words of an intelligent friend on the spot, Mr Robert Pollock, who witnessed the operation, and under date of the 21st of July writes me to the following effect.

"You wish to know whether Cashmere wool, combed by the new Donisthorpe process, will dislodge the kemp hairs by passing them into the noil, so as to deliver a "top" composed of only the finer portions. When I speak of "top," for greater clearness, it may be necessary that I should explain the term, which, in the language of manufacturers, means the combed wool ready for the spinner, that is, the noil and dust taken out. The top issues from the machine in a sliver, and this process is the only one by which the sliver can be rendered uniform and continuous.

"I should, however, premise that the Cashmere wool, of native growth and occasionally imported into this country, is very much freer from the coarse hairs, or kemps, than were the 45 lbs. taken from Prince Albert's goats. I should say that the first does not contain one-tenth part so many; indeed were I to say one-twentieth, perhaps I should be nearer the mark. This, therefore, would seem to indicate that the wool degenerates when the animal is located in our country, or that we are not yet in the secret of clipping at the proper time. Possibly, also, the imported Cashmere wool undergoes some practical preparation before it is embarked. On account of its superior cleanliness the imported article is much more easily dealt with, by our manufacturers, than that produced in this country, if we are to judge from the only sample which so far has passed through their hands.

"I now come more immediately to your question, and in reply I beg to inform you that Donesthorpe's combing machine will not extract *all* the kemp hairs out of Cashmere wool, not even out of that imported, but it does take out a considerable portion of them, perhaps one-third, or from that to one-half. It should, at the same time, be borne in mind, that the machine in question was not constructed for any such special purpose. It will, however, comb foreign Cashmere wool, getting rid, as I have before said, of many of the kemp hairs, and thereby rendering it easy to pick out many more, when the top is in the sliver. The top sent to me by Mr Donesthorpe, and now inclosed, was made from foreign Cashmere wool, for in truth we had no other, that from Prince Albert's goats being all consumed. In this top, clean and sightly as it appears, I found some dirty particles. I have, therefore, been to Mr Donesthorpe's this morning, in order to ascertain whether such would be the case, if a quantity of the raw material was to be combed for the purpose of spinning into yarn for shawls.

"His answer amounts to this—*that it would*; but he guarantees to deliver from wool, as above specified, *a clean top*, and a very nice one the present sample is, I should say equal, if not superior, to that prepared for the yarn usually spun abroad, not even excepting France, for the same purpose. I shall merely add that there is both white and grey Cashmere wool, of which in England the current market price is about 2s. per pound."

If the cleaning experiment has not fully answered the expectations of those who encouraged and forwarded it, some valuable and instructive results have nevertheless therefrom been obtained, and doubtless further efforts will be made to attain the great end in view. Of course it is evident that neither we, nor the French, can ever succeed in weaving fine goods, to any advantage, from this new raw material, if imported dirty, unless by some mechanical process the coarse hairs can be withdrawn from what the French call the *duvet*, or down, the only really serviceable part of the goats' fleece.

This operation cannot consistently be performed by the hand, not only on account of the cost, but also because employment of this kind has been found very unhealthy The Swiss mountaineers shear their goats, and for their own use prepare textures with the wool, to do which they are obliged to extract the coarse part from the fine while placed before them on a table. In handling and turning over the bundles, a number of minute and almost imperceptible particles rise and flit in the air, and when inhaled produce such an injurious effect on the persons, so employed, that many mothers on no account will allow their children to join in so hazardous a kind of work.

Now, however, that public attention has been called to this interesting subject, and it has been ushered in under the highest auspices, there is every hope and expectation that the only remaining obstacle to success will ere long be overcome. Everything is in good train, as well as in good hands, and after the wonders achieved among us by inventions in manufacturing machinery, of which I have had the pleasure of recording one of the most recent and proudest instances, no apprehensions need be entertained as regards the eventual discovery of an economical process of cleaning Cashmere goats' wool and rendering it fit for the loom.

In the meanwhile, this partial disappointment should not deter our manufacturers, in case they wish to attempt this new article, as it appears to be generally admitted that the raw material leaves the highlands of its growth in a more or less prepared state. The fine wool-bearing goat is reared on the cold and dry table-land of Thibet, 12,000 or 16,000 feet above the level of the sea, in this respect resembling the guanaco and vicuña of the Upper Andes, and they prefer the pastures having short aromatic herbage upon them. There are three or four breeds of these goats, but varying in the fineness of their wool. I shall here bring together a few of our best and latest authorities on this subject. We are more indebted to G. T. Vigne, Esq., F.G.S., for a description of the process, used by the Cashmerians in making their shawls, than to any other traveller, and on that account I thought I could not do better, at the present moment, than lay before my readers the following extract:*

"The *poshm-i-shahal* (*poshm* signifies the wool of any animal), or shawl-wool, is found upon the goats pastured upon the elevated regions of Ladákh and Chang-Thung. It is undoubtedly a provision of nature against the effect of the intense cold, to which they are exposed, and is found not only upon the common goat, but also upon the yak, or the Thibetian grunting ox, as well as the shepherd's dog, used in the same inhospitable regions. I know not whether it be found upon the other species of wild goats in Thibet, but the quantity produced by one large ibex is equal to that of three goats, and the cloth woven from it in Little

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* Travels in Kashmir, Ladákh, &c. London, 1842.

Thibet is warmer and softer than the common shawl. Its colour is a dark, dull and brownish maroon. The poshm is a cotton-like down, which grows close to the skin, under the usual coating of hair. That of the goat is only of two colours. If the animal be white, the poshm is white also; if black, or of any other colour, the colour of the poshm is like that of the ibex, but lighter. It is called in Persian *Khád-rung*, *i. e.*, of its own colour, in contradistinction to what has been dyed.

"But I do not think that all the goats in Middle Thibet are provided with poshm. I have seen some very handsome ones, with long thin spiral horns, which had no poshm at the time. and others, of a most ordinary appearance, upon which it was found. The shawl-goat is well figured, though a little flattered in one of the early numbers of the 'Penny Magazine.' It has produced poshm in England, but I believe that the quantity will diminish in each succeeding generation, as the climate is not cold enough to demand such a defence from nature.

"The shawl-goats, imported into France, were not Thibetian, but brought from the province of Talish, on the western bank of the Caspian. Their pasture-grounds, I am informed, are not more than three or four thousand feet in height; and therefore, although in a higher latitude, they probably breathe a warmer atmosphere than that of the far more elevated plains of the Thibetian Himalayas. C. T. Tower, Esq., of Weald Hall, Essex, who has a large and thriving flock of these Talish, or Caucasian goats, has several shawls made from their wool, and informs me that the quantity which they yield, has not perceptibly decreased, even in succeeding generations; but I cannot help thinking that the real Thibetian goat would, in time, fail to yield so large a quantity as at first, and that his progeny would produce still less. I should imagine that this wool was not so much a protection against a still and regular frost, however severe, as against the cold and killing blasts that are so constant upon the plains and passes of Thibet, and which seem to be generated in consequence of the proximity of such snow-clad and elevated regions to the tropical and fervent heat of the plains of Hindostan.

"Goats, producing the shawl-wool, are common in the countries west of the Caspian, and excellent shawls are there made also. Rudák, a village or district upon the right bank of the Indus, about seven or eight days' march from Lehin (the latter being the name of the province), seems to be the first and principal rendezvous of the traders in poshm, which is collected in great quantities from the flocks that are pastured upon the vast plains of Chang-Thung.* The poshm is brought to Ladákh upon the backs of sheep, of a larger breed than I ever saw. It is a long-legged animal, about 3 feet in height, otherwise resembling the Leicestershire breed. One of these is loaded with from 4 to 6 *trak* of poshm, and will travel about 8 or 9 miles a day. The Kashmirian merchants purchase the poshm at Leh, at the rate of 80 *puls* (small handfuls) for a small rupee. It is then cleaned on the spot, and 1 part in 4 only is fit for the purposes of the weaver. This is then carried upon men's backs to Kashmir; one man will carry 10 trak; the time occupied is 10 days, and he is paid at the rate of 1 small rupee per trak for the whole distance.

"When the poshm arrives at Kashmir, the governor takes possession of it and sells it again to the merchants at 20 per cent. profit upon the whole expenses, he keeping the difference for himself. The white poshm may then be purchased, in the city, at about 4 small rupees a *ser* (2 lbs. English), and the dun-coloured at 2½ rupees a *ser*. Some of this is often purchased by the poorer classes who can afford it, and they make a profit by selling it to the manufacturers after it is cleaned and spun into thread; but the poor are sometimes compelled to clean portions of it which are distributed to them. The thread is then dyed of different colours, and of these there are about 40 kinds. Their blues and purples are chiefly made from indigo; their yellows from a Punjabi flower, called *gul-i-kysu*, and from a grass called *woftaugil*, in Kashmir. Their blacks are procured from iron filings and wild pomegranate skins, from which also a light brown is obtained; their reds from kermes and logwood, and a native wood called *leir*; a drab from walnut skins; and it will scarcely be believed that the finest of their greens, and a light blue also, are extracted from English green baize.

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* This is a Thibetian word, and signifies, I believe, the Shepherds' Plains.

"All the thread, used in making a large pair of shawls, does not weigh more than 15 or 20 lbs. English, and may be purchased for 120 to 150 small rupees. After the thread is dyed, it is dipped in rice-water, a process which makes it stronger and fits it to be more easily moved by the shuttle, when the stiffness is removed by washing. The undyed shawl stuff, which sells at five rupees the yard, is called *ubra*, from *ubr*, a cloud; or *alwan-i-sadah* (meaning without colour) if white; and if a border be worked upon it, the remaining white is called *mutun*. *Alwan*, as the shawl stuff is called when free from ornament, is not often, if ever, made up by the Kashmirian weavers of the natural colour of the poshm, and may be, of course, dyed of any colour, red, blue, green, yellow, &c.

"When made with coloured stripes, or flowers upon it, the *chograh* of the Afghans and the *al-khalek*, or long under-coat of the Persians, are made from it. If the pattern be worked with the needle, the shawl is far inferior in every respect to those in which the pattern is wove in. An excellent pair of the former description may be purchased in Kashmir for 150 rupees (about 10*l.*) whereas an equally good pair of the *usulch* (the real) or the latter kind, could not be procured for less than 700 to 800 rupees.

"The productions of the Kashmirian looms, which are of old and unimproved construction, are very numerous, such as *du-shalah*, or two shawls, they being always made in pairs; *jamaweh*, for bedding; *rumal*, for handkerchiefs; *hasheyi*, or the shawl of a coloured ground, with a small border; *urmuk*, resembling very strong nankin, and the *yek-tar* (one thread) a light and beautiful fabric, being of one half the thickness of the common shawl, and which I was told was invented for the Sikh turbans. Besides the above, gloves and socks are manufactured from the shawl wool, and they also make *gulbundun*, or red silk cloth for ladies' trowsers, and *chicun*, or flowers worked in silk upon a cotton ground, similar to those procurable at Moultán. Sashes and trowser-strings are also made from silk; whilst *lungehs*, or pieces of blue cloth for turbans, and *kumurbunds*, or waist-cloths, are prepared from cotton, and rugs and horse-cloths, &c., from wool. A cloth, called *siluig*, is manufactured from the shawl wool in Yarkund* and China; it somewhat resembles a coarse English kerseymere in texture.

"As soon as the shawl is made, notice is given to the inspector, and none can be cut from the loom but in his presence. It is then taken to the custom-house and stamped, a price is put upon it by the proper officer, and 25 per cent. on that price demanded. When it is purchased, and about to leave the valley with its owner, the latter has to pay another four rupees for permit duty and another seal, which enables him to pass with his property; but he is subjected to further duties at Jamu and Umritsir.

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* The chief city of Chinese Toorkestan. A.

"It becomes necessary to wash the shawls, in order to deprive them of the stiffness of the rice-starch remaining in the thread, and for the purpose of softening them generally. The best water for this use is found in the canal, between the lake and the floodgates at the Drogjun. Old shawls that require cleaning, and in some instances new ones, are washed by means of the freshly-gathered root of a parasitical plant, called *kritz*. A pound of it is bruised and mixed with about three pints of water, and to this is added a mixture of pigeons' dung (a piece equal in size to a turkey's egg) mixed and beaten up with about the same quantity of water, and the shawl is then saturated with the liquor and stamped upon, washed with the hand, and then well steeped in the canal. In the plains, the berries of the *raynti* fruit, stirred up with water, yet not so as to form a lather, are used for washing a soiled shawl. A smaller root, known also by the name of *kritz*, is used for cotton cloths. The colours of a shawl, after it has been washed, are often renewed so well as to deceive any but the initiated, by pricking them in again with a wooden pin, dipped in the requisite tints. The fine pale yellow colour of a new shawl is given by means of sulphur fumes. The fool's cap, or cypress-shaped ornament, so commonly worked on the shawls, is a representation of the *jigkh*, or *karhkeh* or aigrette of jewels, which is worn on the forehead in the East. Every great man now wears one; but when the Tartars were in the zenith of their power, under Timour Shah, it was the privilege of royalty only."

In the Journal of the Asiatic Society for October, 1847, there is a paper written by B. H. Hodgson, Esq., on "The Tame Sheep and Goats of the Sub-Himalayas and of Thibet," which speaking of the *Capra Changrà*, remarks that this is the common domestic goat of Thibet, a breed of moderate size, distinguished by the uniform abundance of its long flowing straight hair, which descends below the knees and hocks, and covers pretty uniformly the whole animal. Next follows a description of this goat, and afterwards the subjoined remarks are introduced :—

"On the dry plains of Thibet, which are everywhere varied by hills and broken ground, the *Changrà* flourishes exceedingly, and also in the Northern region of the cis-Himalayan mountains. He will not only live, but also breed in the central region of the sub-Himalayas, and with extreme care may be kept alive, but not breed in the Southern region of the hills and even on the plains; as he merely exists in the two last locations, and even in the central region of the mountains he loses the fine silky sub-fleece, retaining the external hairy pelage only, and that much shorn of its fair proportions. A Kirghis breed, allied to the *Changrà*, has been conveyed safely to Europe, and bred there successfully in the Alpine parts of Southern France; and as both this and the *Changrà* are closely allied to the celebrated shawl goat, I have no doubt that either their exquisite sub-fleece, or their abundant outer coat could be turned to good account, if not immediately, yet after crossing the breed with some nearer appropriate stock, such as the Angora or Whidah. The nations of Thibet manufacture ropes, caps and coarse overalls out of the long hair, and a fine woollen cloth, called *Tùr*, out of the sub-fleece, mixed occasionally with the wool of the Silingia sheep. The flesh of the *Changrà*, especially of the kids, is excellent and much eaten by the Thibetians and cis-Himalayans, and even by the Hindoos of the central region."

The Cashmerians, it is well known, have long been in the habit of receiving the fine goats' wool for their shawls from Ladàkh, or Middle Thibet, and according to a very curious paper, written by a native trader of some eminence, and translated from a Persian MS., the Cashmere merchants, at the proper season, proceed thither provided with coin and a variety of trading articles to purchase supplies, on which a duty is laid, and along the greater part of the road home their packages are carried by porters, under the control of the local authorities, who, when a proper passport has been obtained, afford every assistance and protection to traders.* "Some dealers," observes the same paper, "purchase the shawl wool in the rough uncleaned state, good and bad together; they then separate it from a large quantity of hair which is mixed with it, and after sorting it into different qualities and cleaning it, they make it into packages and export it, at the proper season, by means of hired porters, to Kashmir."

It is thus presumable that the wool is taken away in a prepared state, as otherwise it could never bear the expenses of conveyance and transit duties. Two lbs. are obtained from each goat yearly, and in the local marts it usually sells at one rupee per lb. The colour varies from white to light grey; but the latter is not esteemed. No doubt on reaching Cashmere the wool undergoes some additional process of picking and cleaning, if not of sorting, when, as before seen, it is repeatedly washed in thin rice starch. This part of the preparation by the native manufacturers is deemed important, nay essential, and it is partly to the water of their valley that the Cashmerians attribute the peculiar and inimitable fineness of the textures produced among them. The thread is always dyed in rice water.

Seeing the enormously high prices paid by European ladies for Cashmere shawls, made by native manufacturers with no other than the very rudest machinery, the French at once concluded that, if they could only secure the raw material they might establish a new department of industry for themselves. After the return of the French army from Egypt, a taste for Asiatic shawls became general in France, and when Napoleon rose to power he was a decided patron and supporter of the plan to make them at home, in which the eminent shawl manufacturer, M. Ternaux, took the lead, and who in 1822, published a little tract, in which he detailed the various operations into which he had successively entered, at his own expense, to provide the requisite material and also to obtain the best attainable live stock, so as eventually to render the manufacturer independent of any external supply.*

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* Route from Kashmir, *viâ* Ladàkh, to Yarkhund, art. viii in the Royal Asiatic Society's Journal, vol. xii, part ii (1850).

M. Ternaux's first step was to commission an agent to attend the Russian fair of Novogorod, the general mart for all Asiatic productions, where an Armenian exhibited to him a sample of fine goats' wool, and promised to bring him a large package of it at the next fair. The Armenian kept his word and furnished a bale of 60lbs.; but, as the exportation of this article was at that time prohibited in Russia, it became necessary to smuggle it away. This small quantity served as a basis for encouraging experiments, when the war of 1807, followed by momentous events, prevented this enterprise from being then pushed forward.

While matters thus remained stationary, M. Ternaux assures us that for ten years his mind was steadfastly kept upon his scheme, and that in the interval he did not lose a single opportunity of realising it. He had ascertained that the article, used in his manufactory and sold to him in Russia as Persian wool, was the produce of Thibet shawl-wool goats, originally brought to Persia by the famous Thomas Kouli-Khan, and that they had multiplied in Caboul, Candahar, Bokara, and even in the province of Kerman.† With this fresh information before him, calculated not only to confirm his own ideas, but also strengthen his hopes, in 1814 M. Ternaux commissioned a French captain, on the eve of his departure for Calcutta, to procure for him as much genuine Thebetian goats' wool there as he could, and accordingly the captain brought back with him a few small bales.

This result gave a fresh stimulus to the enterprise and after the Restoration, under the powerful auspices of the Duke de Richelieu and with all the aid which the French interest could command at St Petersburg, a plan was formed to import a flock of wool-bearing goats, in which the Government bore its proportionate share of expense. M. Jaubert, M. Ternaux's partner, was commissioned to carry this plan into effect, which it must be acknowledged, he executed in the most clever and judicious manner, under difficulties and privations sufficient to appal any other man. The stock was procured among the mountain tribes of Persia and the neighbouring provinces, being selected with great care.

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* Recueil de Piéces sur l'Importation et la Naturalisation en France, par MM. Ternaux et Jaubert, des Chèvres de Race Thibetaine, ou Chèvres à Duvet de Cashmere.

† Vide Sir Alexander Burns' remarks on the Bokarian Goats, p. 271 of my last publication.

Instead of returning by the way of Kiachta, Tobolsk and Moscow, M. Jaubert preferred the route by the Volga and Caspian Sea, so long travelled by the Armenians, carrying rhubarb to Turkey. On the Ural mountains he was obliged to leave 200 of his animals behind him, and for a considerable distance had to journey on with 17 carts of sick and tired ones in his rear. At length he reached the Crimea, where in the port Theodosia, or Kaffa, he embarked 568 goats, 240 of the pure race and the rest crossed. After touching at Constantinople and entering the Mediterranean, of his two vessels one arrived at Marseilles and the other at Toulon, early in 1819.

This stock came in two divisions, one belonging to the Government and the other to M. Ternaux. The first was forwarded to a royal establishment near Perpignan, and after disposing of several lots in the vicinity of Toulon, M. Ternaux brought his portion to his own park at St Ouen, near Paris, where, in 1822, he had 180, one third being original stock, one third the increase in 1820 and another that of 1821. Some were also sent to the Pyrenees and others to the Alps; while many more where dispersed through the country. In May, 1823, C. T. Tower, Esq., of Weald Hall, Essex, purchased stock to the extent of 9 goats of M. Ternaux, for himself and a friend, with the view of trying the experiment in England. Through M. Ternaux's death, and the political convulsions successively experienced in France, the breeding of Asiatic goats has not prospered; but eventually the largest portion of the Government stock passed into the hands of the late Queen of the French, who had shawls and dresses manufactured from their fleeces, while M. Ternaux's chiefly became the property of M. Polonneau, who, as on a former occasion mentioned by me, tried the curious experiment of crossing them with the Angora goat.

Mr Tower's name is mentioned in the preceding extract from Vigne's book, and as I have long been on intimate terms with that gentleman, and knowing him as a superior breeder of sheep, I addressed a letter with the view of ascertaining how he managed his wool-bearing goats, and after so long a lapse of time how they fared. Subjoined is an extract from his reply, dated Weald Hall, August 21st, 1851.

"I lose no time in giving you the information requested. The goats are always combed, and when this is done, in April, there is little of the hair mixed with the down to be picked out. Later, in May or June, the animal sheds the hair, as well as rubs off the down with it, which a careless comber left underneath.* The hair is not only valueless, but attended with much expense in picking it clean.

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* Subsequently the writer verbally informed me that this was first done with a coarse horse comb, and afterwards with one having finer teeth.

Hair, as you know, is a non-elastic fibre, very troublesome to the manufacturer, as it does not felt, but starts out of the web.

"I saw the manufactures from the Prince's goats at the Exhibition, and admired them much, except that made from the hair. The celebrated M. Ternaux, of St Ouen, near Paris, of whom I purchased my original stock, had coarse hats made of the hair, for coachmen, being so well adapted to shoot off the rain. Perhaps the Prince might like to know that I have had five shawls manufactured from my down, four of them at Paris, which cost me together for making 74*l*., and one, made last year by Messrs Blakely, of Norwich, at the charge of 30 guineas. It would have been sent to the Exhibition, but we were fearful of its receiving injury from being handled, the touch of so soft and delicate a fibre being its peculiar merit.

"The number of my little stock, which I had the honour of presenting to Her Majesty and Prince Albert, was 13, 10 females and 3 males. I should also tell you that I obtained the large gold medal, now in my possession, from the Society of Arts, for a dress manufactured from my own down, which was afterwards presented to George IV, through Sir William Knighton, whose letter of thanks I have. I think it was manufactured at Paisley."

Amidst all my researches I am obliged to confess that I have been unable to ascertain, with anything like precision, the usual manner in which the Thibetians and neighbouring shepherds obtain their goats' fleeces, whether by shearing or combing. The only fact satisfactorily established by the preceding extracts is, that in Thibet the fleece reaches the market in an unprepared state, and that there it is picked and cleaned, at an enormous sacrifice of weight, before it goes to Cashmere for use. Mr Tower's letter throws new light upon this part of the subject, and it is more than presumable that he follows the mode adopted by the French.

From the examples before us, it is at the same time evident that, notwithstanding the difficulties in naturalising the wool-bearing goat of Central Asia in distant climes, as anticipated by most of our travellers in the regions for which it is most noted, the experiment, to a certain extent, has succeeded both in France and England, although the preferable situations for its procreation have not perhaps been selected. Whether it would be worth while to extend this stock in our British Isles I am not prepared to say; but it is a curious fact that, while goats, once a favourite and almost a national stock, and scarcely used for anything else than their milk, are fast disappearing, in Wales, their numbers increase in Ireland. According to the "Annual Returns respecting the Agriculture, Produce and other Statistics of Ireland, for the year 1850," the goats kept there are entered, in 1849, at 182,988, and in 1850, at 201,112.* If these were wool-bearing animals they would afford equally as much milk, consume no more food, nor require more care. I may avail myself of this opportunity to add that, according to the same authority, my anticipations of an increase of sheep in the sister isle are realising. In 1849, they were returned at 1,777,111, in 1850, at 1,876,096.

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* Under the existing circumstances of Ireland, astonished at this remarkable increase, I wrote an intelligent friend at Roscrea (Tipperary), practically acquainted

Reverting to fine goats' wool, as an article of manufacture, it will have been seen that the French receive their supplies through devious and expensive lines of road, and I have dwelt longer upon this particular fact, because I was desirous that the difficulties, under which they labour in this respect, should be properly understood. "This down which we have been in the habit of receiving for the last 15 years," says the Official Report on the Productions of French Industry for 1844, "comes to us in proportions, almost invariable as regards quantity and cost price, say from 75,000 to 77,000 kilogrammes (from 187,500 to 192,500 lbs.), valued at from 7 to 9 francs (5s. 10d. to 8s. 4d.) the kilogramme" (2½ lbs.*) From the head of the Mediterranean the French import a considerable quantity of Angora goats' wool, and occasionally also purchase it in our markets.

In the absence of more recent statistical and commercial information on this particular subject, derived from acknowledged authorities, it may be safely assumed that, at the present day, the French manufacturers annually consume a larger quantity of imported goats' wool than they did ten years ago; and it is presumable that the additional supply is derived from more than one source. A recent Report on the Manufacture of Woollens in France, published among the Jury Proceedings of one of the late "*Expositions*," estimates the annual value of all textures

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with wool, to account for it. His reply, under date of the 27th of August, is thus worded: "The increase of goats is entirely owing to the terribly impoverished state of the country, persons being obliged to sell their cows, and unable to replace them substitute goats, which cost but a trifle, and subsist on their milk, instead of that of cows. As regards the hair, or wool, on goats, little notice is taken of it. The price, by the stone of 10 lbs., is about 2s., and the skin brings no more than from 4d. to 6d." Still dubious what use could be made of this raw material, I addressed an experienced house at Liverpool on the subject, whose answer, under date of the 30th of August, is subjoined:

"In reply to your favour of 28th inst., we beg to inform you that the goats' hair from Ireland is used to mix in with low carpet yarns, and very extensively worked up, both in Yorkshire and Scotland, for that purpose. It is taken off the dead animal with lime, and usually comes in a very dirty state. We cannot estimate the quantity produced, but we may get to the extent of a few hundred tons in this market. We are," &c.

* M. Ternaux recorded the fact that towards 1820 this article sold from 20 to 22 francs the half kilogramme (1¼ lb.), and in 1822 for 9 francs.

made wholly, or partly, of wool, at 300 millions of francs (14,500,000*l.*) of which amount the proportion of unmilled articles, chiefly manufactured at Paris, Malhouse, Amiens, Roubaix, &c., is rated at 180 millions of francs (7,500,000*l.*)

What proportion the French articles, called "Cashmeres," bear in the latter amount we are left to conjecture; but unquestionably in those so denominated there are mixtures and adulterations to a considerable extent. In my last work (page 320) I introduced to the English reader the name of M. Biétry, of Villepreux (Seine et Oise) as one of the most successful manufacturers of Cashmere shawls in France, and he reached an eminence in this branch of industry which he has since retained, having at the "*Expositions*," since 1823, received six medals and distinctions, among which was the Cross of the Legion of Honour. Although competitors have successively sprung up, both in and out of Paris, Messrs Biétry and Son continue to be the leading manufacturers in France of the textile fabrics, known as "Cashmeres," which, in their handbills, distributed at our Exhibition, are thus announced:—"Long shawls, from 20*l.* to 40*l.*, according to the fineness of the manufacture and design; square shawls, from 8*l.* to 20*l.*; embroidered shawls, from 15*l.* to 25*l.*; tissues for dresses, &c., from 10s. to 15s. per yard." And yet M. Biétry himself, in a recent Report of his own, and now before me, very frankly acknowledges that these textures are not wholly made of goats' wool. He therein tells us that the mixture, with it, of fine and silky sheeps' wool, in the preparation of warps, imparts strength, without in any way affecting the brilliancy, or softness of the web; adding that by this mixture a great advantage is gained, as before pure Cashmere warps had not sufficient strength, whereas now they acquire the requisite consistency, even for dresses. The imitations of Cashmere shawls and other adulterations have, however, of late become so numerous in France, that Messrs Biétry and Son felt themselves called upon to issue the following notice, contained in a circular, distributed at our Exhibition. "For several years fraud and misstatements have been so deplorably mixed up with that beautiful branch of industry, the French Cashmere manufacture, that woollen shawls and tissues, as also weft of silk and cotton, have been sold under the high-sounding title of Cashmeres. M. Biétry, as a spinner and manufacturer of Cashmeres, having received the most distinguished rewards at the French Exhibitions, has considered it to be his duty, as well for the interest of the industrial body, engaged in Cashmere manufactures, as for the consumer, to put an end to this fraud by proceeding against several of the fraudulent parties in the Law Courts, and to warn the purchasers of this beautiful production, through the principal French journals, that until the law, compelling manufacturers to mark their goods, is decreed, it is to their interest to require a guarantee from the vendor." The fact is, that there is no article of female dress, sold in France, in which the foreign purchaser has been so much imposed upon as in those ticketed "Cashmeres."

From what has been above stated it must appear evident to the experienced manufacturer of wool, that we have means within ourselves for producing a genuine and moderately-priced article of female attire, which has hitherto been purchased abroad, at extravagant charges and frequently under the grossest deceptions. The instances adduced of the textile fabrics produced in Yorkshire, at Norwich and Paisley, from mere samples, under every disadvantage and without, at the moment, any prospect of further orders, establish the fact that we can manufacture fine goats' wool, and if we are thereby enabled to introduce a new and useful branch of industry among our countrymen, there is no knowing how far the growing advantages may extend.

Leaving the naturalization of the animal to the work of time, if hereafter it should be deemed advisable to try it, all that we require for the present is a regular importation of the raw material, without which there can be no adequate encouragement. It has been pointed out whence and how, for more than the last quarter of a century, the French have been in the habit of obtaining their supplies of fine goats' wool, and their efforts have also been traced to adopt the animal, bearing it, in sufficient detail to show the importance of the double object which they had in view. In this manner, all along, the French have been enabled to send forth imitations of Cashmere textures, while, in our own Import Returns, not a single lb. of this raw material is entered!

Very superior goats' wool, doubtless, can be procured in several of our new acquisitions in India, and as regards our comparative facilities of obtaining it direct from Thibet they are apparent. In his earnestness it has been seen that, in 1814, M. Ternaux tried the Calcutta channel with success. I have before recorded an instance of Thibetian sheep being conveyed down to Simla first, thence to Calcutta, and at the proper season embarked and brought safely to England. With the improvements, now going on in India, both as regards roads and conveyances, why could not this same line be opened for the transmission of fine goats' wool? Were it so, even the French would find it to their interest to come into our market to purchase the article, as they are now doing in reference to Australian wool. Parties, disposed to speculate in this manner, might find it advisable to station agents up the country for the purpose of collecting the goats' wool in the cleanest state possible. It would be an advantage to the natives to concur in and support such a plan as this, which, there is every reason to believe, would also meet with encouragement from the local authorities. A new export article from India would thus be brought forward, the introduction of which among our woollen manufacturers, in the course of time may lead to important results, merely by enabling them to add an interesting variety to the produce of their looms.

THE END.

Reynell and Weight, Printers, 16 Little Pulteney street, Haymarket.